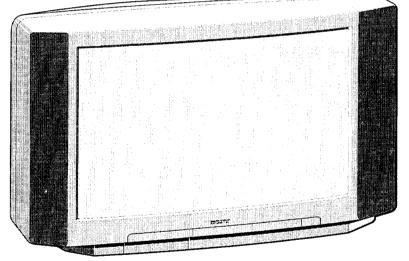
SERVICE MANUAL

AE-3 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-28WS3A	RM-838	ltalian	SCC-J26B-A	KV-28WS3K	RM-838	OIRT	SCC-J29B-A
KV-28WS3E	RM-838	French	SCC-J27B-A	KV-28WS3U	RM-838	UK	SCC-J24A-A
KV-28WS3E) RM-838	AEP	SCC-J23A-A				
KV-28WS3E	R M-838	Spanish	SCC-J28B-A				





SuperTrinitron

WIDE





ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 D/K VHF: R01-R12 UHF: R21-R69	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)
French	L, B/G/H, I	L VHF: F2-F10 UHF: F21-F69 Cable TV: B-Q B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 I B21-69	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: B-Q UHF: S21-S41	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)
Spanish	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 SECAM D/K VHF: R01-R12 UHF: R21-R60	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)
OIRT	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 Cable TV (1): S1-S41 Cable TV (2): S01-S05, M1-M10, U1-U10 ITALY VHF: A-H UHF: H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: B-Q UHF: S21-S41	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)
UK	ı	UHF: 21-69	SECAM, PAL, PAL + NTSC 3.58 (video input only) NTSC4.43 (video input only)

MODEL	Italian	French	AEP	Spanish	OIRT	UK
Power Consumption	141W	153 W h	141W	153Wh	151W	199W

SPECIFICATIONS

Picture Tube

Super Trinitron Wide

Approx. 71 cm (28 inches) (Approx. 66 cm picture measured

diagonally)
110° -deflection

Rear/Front Terminals

[REAR]

21-pin Euro connector (CENELEC standard)

Input for audio and video signals

Input for RGB

- Outputs of TV video and audio signals

\$\rightarrow 2/\leftarrow \in 2/\leftarr

- Input for audio and video signals

Input for S video

- Outputs of TV video and audio signals (selectable)

S+4/+S 4 21-pin Euro connector

- Input for audio and video signals

- Input for S video

- Outputs of TV video and audio signals (monitor out)

-S2, -S4 S video inputs - 4 pin DIN

Audio inputs (L, R) - phono jacks

S video output - 4 pin DIN

Audio outputs - phono jacks

Audio outputs (variable) - phono jacks External speaker terminals : 2-pin DIN (5)

[FRONT]

Video input - phono jack

Audio inputs - phono jacks

S video input - 4-pin DIN

Ω Headphone jack : stereo minijack

Sound output 2x30W (music power)

Centre 1x30W Surround 2x15W

Dimensions Approx. 798x491x531 mm

Weight Approx. 47 kg

Supplied accessories Remote Commander RM-838 (1)

Scroll Commander RM-860 (1)

Batteries R6 (2) Surround speaker (2)

Surround Loudspeaker lead (2)

Other features

Digital comb filter (High resolution)

FASTEXT

DNR (Digital Noise Reduction)

Scroll Commander

Dolby Digital Surround System

100Hz Digital Plus Graphic Equalizer PAP (Picture and Picture)

PAL plus

[RM-838]

Dimensions

Weight

Remote control system

infrared control

Power requirements

1.5V dc

1 battery IEC designation

R6 (size AA)

Approx. 65x225x21 mm (w/h/d)

Approx. 157g (Not including battery)

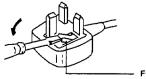
Design and specifications are subject to change without notice.

Model name	KV-28WS3A	KV28WS3B	KV-28WS3D	KV-28WS3E	KV-28WS3K	KV-28WS3U
Item						
Pal Comb	ON	ON	ON	ON	ON	ON
PIP	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	ON	ON	ON	ON
60 Programs	OFF	OFF	OFF	OFF	OFF	OFF
PAL PLUS	ON	ON	ON	ON	ON	ON
DOLBY	ON	ON	ON	ON	ON	ON
DSP	OFF	OFF	OFF	OFF	OFF	OFF
EQUALIZER	ON	ON	ON	ON	ON	ON
SUB TUNER	ON	ON	ON	ON	ON	ON
PAP	ON	ON	ON	ON	ON	ON
MLT.PIP	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front 3	ON	ON	ON	ON	ON	ON
Scart 4	ON	ON	ON	ON	ON	ON
DYN. CONV.	OFF	OFF	OFF	OFF	OFF	OFF
PIC. ROT.	ON	ON	ON	ON	ON	ON
Language Preset	Italian	French	German	Spanish	OIRT	English

WARNING (KV-28WS3U only)

The flexible mains lead is supplied connected to a **B.S.** 1363 fused plug having a fuse of 5 AMP capacity. Should the fuse need to be replaced, use a 5 AMP FUSE approved by ASTA to BS 1362, ie one that carries the mark.

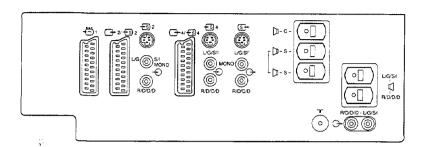
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET. When an alternative type of plug is used it should be fitted with a 5 AMP FUSE, otherwise the circuit should be protected by a 5 AMP FUSE at the distribution board.

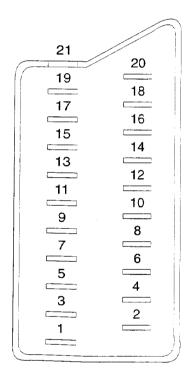


How to replace the fuse. Open the fuse compartment with the screwdriver blade and replace the fuse.

FUSE

21 pin connector ($\stackrel{\dots}{-}$ 1, $\stackrel{\dots}{\otimes}$ 2/ $\stackrel{\dots}{-}$ 82, $\stackrel{\dots}{\otimes}$ 4/ $\stackrel{\dots}{-}$ 84)





Pin No		Signal	Signal level
1	0	Audio output B (right)	Standard level: 0.5Vrms Output impedance:less than 1kohm*
2	0	Audio input B (right)	Standard level:0.5Vrms Input impedance:More than 10kohms*
3	0	Audio output A (left)	Standard level:0.5Vrms Output impedance:less than 1kohm*
4	0	Ground (audio)	
5	0	Ground (blue)	
6	0	Audio input A (left)	Standard level:0.5Vrms Input impedance:More than 10kohms*
7	0	Blue input	0.7V±3dB, 75ohms, positive
8	0	Function select (AV control)	High state (9.5—12V):Part mode Low state (0—2V):TV mode Input impedance:More than 10kohms Input capacitance:Less than 2nF
9	0	Ground (green)	
10	0	Open	
11	0	Green	Green signal:0.7V±3dB. 75ohms, positive
12	0	Open	
13	0	Ground(red)	
14	•	Ground (blanking)	
15	0	Red input	0.7V±3dB, 75ohms, positive
		(S signal) croma input	0.3V±3dB, 75ohms, positive
16	0	Blanking input (Ys signal)	High state (1—3V) Low state (0—0.4V) Input impedance:75ohms
17	0	Ground (video output)	
18	0	Ground (video input)	-
19	0	Video output	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
20	0	Video input	1V±3dB, 75chms, positive Sync:0.3V(-3, +10dB)
		Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync:0.3V(-3, +10dB)
21	0	Common ground (plug, shield)	

O Connected • Not Connected (open) * at 20Hz - 20kHz

Pin No	Signal	Signal level	
11	Ground		
2	Ground		
3	Y (S signal) input	1V ± 3dB 75 ohm , positive Sync. 0.3V -3/+10 dB	
4	C (S signal) input	0.3V ± 3dB 75 ohm , positive Sync.	

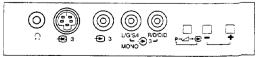


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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK A ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE A SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

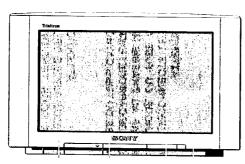
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

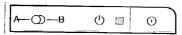
TV set - front



Φ





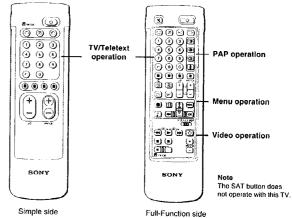


Symbol	Name	Refer to page
0	Main power switch	41, 48
Φ	Standby indicator	48
A-CD-B	Stereo A/B mode indicators	50
Ω	Headphones jack	59
- 39 3, ⊕3, ⊕3	Input jacks (S video/video/audio)	59
₽→△→⊕	Function selector	
	(Programme/volume/input)	48
_/+	Adjustment buttons for function selector	48

Scroll Commander RM-860

Remote Commander RM-838





PAP (Picture-and-picture) operation

Symbol	Name	Refer to Page
0	PAP on / off button	53
t	PAP source selector	53
③	Swap button	53 💄
(II)	PAP freeze button	53

Menu operation

Symbol	Name	Refer to Page
MENU	Menu on / off button	41
△+/▽−	Select buttons	41
ОК	OK (confirming) button	41
	Back button	41
1 /0K	Scroll Commander: Roller to select confirm menu functions	cV 41

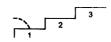
Video operation

riaco ope	anon	
Symbo!	Name	Refer to Page
/TR1/2/3 MDP	Video equipment selector	61
44 ► ►► HII • ७ PROGR +/-	Video equipment operation buttons	61

TV/Teletext operation Name

Symbol	Name	Refer to Page
咪	Muting on/off button	49
Ö	Standby button	48
0	TV power on/TV mode selector button	48
	Teletext button	49
O .	Input mode selector	49
\bigcirc	Output mode selector	60
1,2,3,4,5,6, 7,8,9 and 0	Number buttons	48
-/	Double-digit entering button	48
С	Direct channel entering button	47
∠] +/~	Volume control button	48
PROGR +/~	Programme selectors	48
6 6	Teletext page access buttons	56
•	Picture adjustment button	50
Þ	Sound adjustment button	50
\odot	On-screen display button	49
€	Teletext hold button	56
()	Time display button	49
	Fastext buttons	56
₩	»Freeze« button	49
Ete	Button to change Screen Format	49

Step 1 – Connection



Notes:

Note:

If you prefer to use your own speakers, make sure

they are at least 8 \O impedance and are magnetically shielded otherwise picture distortion may occur.

. Connect the speakers using the leads provided making sure to observe the following polarity: The striped lead is (+) and should be connected to the red terminal on the speaker.

The black lead is (-) and should be connected to the black terminal on the speaker.

1 Connect the speakers

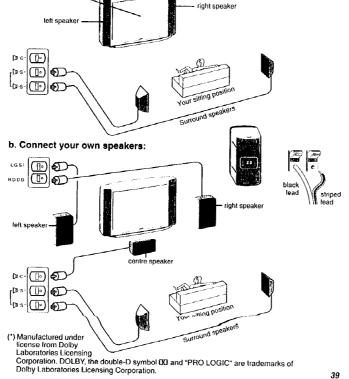
Dolby (*) Pro Logic Surround requires normally 5 speakers, whose functions are as follows: Centre speaker: (incorporated in the TV set): to anchor the stable sound image, like dialogue,

Left and Right front speakers: for the normal two-channel stereo broadcasts. Surround speakers: for the special effects created by the surround channel.

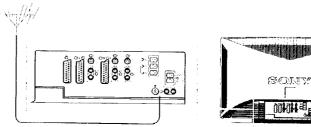
To obtain the full benefit of your Dolby Pro Logic Surround TV, the speakers should be

Before switching on: connect the speakers to the TV set.

a. Connect the speakers provided only:



Connect the aerial



Fit an IEC aerial connector attached to 75-ohm coaxial cable (not supplied) to the Tr socket at the rear of the TV. Make sure to use an aerial cable corresponding to the relevant regulations.

Step 2 - Preparation

Insert the batteries into the **Remote Commanders**







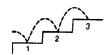
Refit the outside cover making sure that the Full-Function side is visible to use the menu in Step 3.

Check the correct polarities.

polarities.

Remove the cover.

Step 3 Tuning in to TV Stations





 ∞

Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

- Check that the Full-Function side of the Remote Commander is
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.

Easy Menu operation using the Scroll Commander

In addition to our double-sided Remote Commander, your TV set is supplied with an extra Remote Commander. The »Scroll Commander« works with a roller for convenient, fast-access operation of the menu functions.

Move the roller upwards to move the cursor upwards, move the roller downwards to move the cursor downwards, press the roller to confirm a selection. The other buttons on this commander have the same functions as the respective buttons on the double-sided Remote Commander



The TV will switch on. If the standby indicator on the TV is lit, press in or a number button on the Remote Commander.

Press the MENU button.

The LANGUAGE menu appears. (See Fig. 1)



3 Select the language you want with ∆+ or ∇-



To go back to the normal TV picture: Press MENU, Normal TV nicture will be restored after one minute if menu functions are not

To go back to main

Keep pressing -

Ó

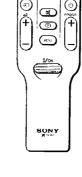
Note on the Demo

If you choose Demo in the Installation menu sequential demonstration of the menu functions. Press MENU to stop



The main menu appears. (See Fig. 2) Using ∆+ or ∇- select the symbol 🛅 and press OK. Now, choose one of the methods described overleaf: »Preset Channels Automatically«

»Preset Channels Manually«.



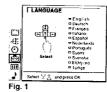




Fig. 2

With this method, you can preset all receivable channels at once

To stop automatic channel presetting: Press - on the Remote

Notes:

- · After presetting the channels automatically. you can check which channels are stored on which programme positions. For details, see »Displaying the Programme Table« on page 49.
- You can sort the programme positions to have them appear on screen in the order you like. For details, see "Sorting Programme Positions« on page 44

Programme names are automatically taken from Teletext if available, If not, please refer to page 46 "Captioning a Station name« for more information.

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one. You may also allocate programme numbers to various video input SOUTCRS

If you have made a mistake: Press to go back to the previous position. To go back to main Keep pressing -To go back to the normal TV picture: Press MENU.

3 Preset channels automatically

- 1 Select the symbol for »Preset« with Δ+ or ∇- and press OK. The PRESET menu appears. (See Fig. 3.)
- 2 Select »Auto Programme« with ∆+ or ∇- and press OK. The AUTO PROGRAMME menu appears. (See Fig. 4)
- 3 Press OK. Select if necessary the TV broadcast system (B/G for Western European or D/K for Eastern European countries) with ∆+ or ∇and press OK. The first element of the »PROG« number will be
- 4 Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with Δ + or ∇ - or the number buttons (e.g. For "04". select »0« here) and press OK.
 - The second element of »PROG« will be highlighted.
- 5 Select the second element of the double-digit number with Δ + or ∇- or the number buttons (e.g. For »04«, select »4« here) (See Fig. 5) and press OK.
- 6 Select »C« or »S« with Δ+ or ∇- and press OK. The automatic channel presetting starts. When presetting is finished, the preset menu reappears. All available channels are now stored on successive number buttons. Press menu to restore normal TV picture



Fig. 3



Fig. 4

SYS	PROG	CH	LABEL
O B G	P9	C25	

Fig. 5

1 Preset channels manually

- Select the symbol $\ \ \, \stackrel{\square}{\longleftarrow} \ \,$ for »Preset« with $\Delta +$ or $\nabla -$ and press OK. The PRESET menu appears. (See Fig. 6)
- 2 Select »Manual Programme Preset« with ∆+ or ∇- and

The MANUAL PROGRAMME PRESET menu appears. (See Fig. 7)



[MAR	JAL P	ROGE	WHE	PRESET
ı	PROG	SYS	СН	SEARCH	LABEL
	T	8.6	CSI	off	
0	2	B.G	C34	off	
ū	1 3	B.G	C33	off	
a		B.G	C45	off	
0	1 5	RG	CA2	off	
D		BG	C08	off	
17	7	BG	C10	tto	
0	1 8	8.G	C12	011	
0	9	e.g	C20	off	
0	10	B.G	C59	off	· · · · · ↓
_	•				
1	Select	⊽ ‡	and c	ress OK	

Fig. 7

42

191

If you have made a mistake:
Press 4- to go back to the previous position.
To go back to main menu:
Keep pressing 4-.
To go back to the normal TV picture:
Press MENU.

To tune in a channel by

After selecting F in step

the number buttons.

6, enter three digits using

frequency:

Press OK.

3 Using ∆+ or ∇-, select the programme position (number button) to which you want to preset a channel, and press OK.

4 Select, if necessary the TV broadcast system or a video input source (EXT) with Δ+ or ∇-.

5 Then press OK. The CH position will be highlighted. (See Fig. 8)

6 Using ∆+ or ∇-, select C (to preset a regular channel), S (cable channel) or F (to tune in by frequency) and press OK. The first element of the "CH" number will be highlighted.
If you have selected EXT in step 5, select the video input source with ∆+ or ∇-. (See Fig. 9)

There are two ways to preset channels. If you know the channel number, go to step "7-Manual",

or

if you don't know the channel number, go to step »7- Search«.

7 Manual

 -a Select the first element of the "CH« number with Δ+ or ∇− or the number buttons and press OK.
 The second element of the "CH« number will be highlighted.

 -b Select the second element of the number with Δ+ or ∇− or the number buttons.

The selected number appears. (See Fig. 10)

Press OK
 The »SEARCH« position is highlighted and the selected channel is now stored. (See Fig. 11)

- -d Press OK until the cursor appears by the next programme position.
- -e Repeat sleps 3 to 7 to preset other channels

7 Search

- -a Press OK repeatedly until the colour of the SEARCH position changes.
- -b Start searching for the channel with Δ+ (up) or ∇− (down). The CH position changes colour. (See Fig. 12) The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13)
- -c Press OK if you want to store this channel. If not, press △+ or ∇- to continue channel searching.
- d Press OK until the cursor appears by the next programme position.
- -e Repeat steps 3 to 7 to preset other channels.



CEI off -----

02 RG C 35 cff - ---

02 8G C 35 cff ----

11 2 B.G C 50 A▼----

Fig. 8

93 EXT

Fig. 10

Fig. 11

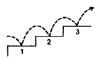
Fig. 12

Fig. 13

PROGRAMME SORTING



Additional Presetting Functions



This section shows you additional presetting functions such as sorting or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible
- · Locate the Menu operation buttons.

Sorting Programme Positions

With this function, you can sort the programme positions to a preferable order.

- Press MENU to display the main menu.
- Select the symbol of or »Preset« with ∆+ or ∇- and press OK. The PRESET menu appears.
- 3 Select »Programme Sorting« with Δ+ or ∇− and press OK. The PROGRAMME SORTING menu appears. (See Fig. 14)
- 4 Using ∆+ or ∇- select the programme position which you want to move to another and press OK. The colour of the selected position changes. (See Fig. 15)
- 5 Using ∆+ or ∇ select the programme position to which you want to move the channel of the programme position selected in step 4 and press OK. Now the programme positions have been sorted. (See Fig. 16)
- 6 Repeat steps 4 and 5 to sort other programme positions.



Fig. 14



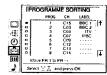


Fig. 16

INSTALLATION

For higher programme positions:
The display scrolls automatically.
If you have made a mistake:

Press to go back
to the previous
position.
To go back to main
menu:

Keep pressing ←
To go back to the
normal TV picture:
Press MENU.

If due to the earth magnetism the picture »slants«, you can use the function »Picture Rotation« to readjust the picture.

Press MENU to display the main menu.

Rotation

- 2 Select the symbol $\stackrel{\mbox{\tiny def}}{=}$ for »Preset« with $\Delta+$ or $\nabla-$ and press OK. The PRESET menu appears.
- 3 Select »Installation« with Δ+ or ∇- and press OK. The INSTALLATION menu appears.

How to adjust the Picture

- 4 Select »Picture Rotation« with ∆+ or ∇− and press OK. The PICTURE ROTATION menu appears. (See Fig. 17)
- 5 Press OK. Adjust the picture rotation with Δ+ or ∇- until you have an upright picture. As you press the cursor buttons, the range changes from 4 to + 4.
- 6 Press OK to store the adjustment.



Fig. 17

0

INSTALLATION

Using »Further Programme Preset«

Using the menu »Further Programme Preset« you can

- a) in case of a strong local aerial signal (striped picture) attenuate the signal individually for each programme position (RF attenuator).
- b) individually adjust and store the volume level of each channel (Volume offset).
- in case of a strong sound signal (distorted sound), attenuate the sound signal for each programme position.
- d) use the manual fine tuning to obtain a better picture reception, if the picture is distorted. Normally the AFT (automatic fine tuning) is operating.
- 1 Press MENU to display the main menu.
- Select the symbol or ∘Preset with △+ or ∇- and press OK. The PRESET menu appears.
- 3 Select »Installation« with ∆+ or ∇- and press OK. The INSTALLATION menu appears.
- Select »Further Programme Preset« with ∆+ or ∇- and press OK. The FURTHER PROGRAMME PRESET menu appears (See Fig. 18).
- 5 Using ∆+ or ∇- select the desired programme position and press OK once to select a) »ATT« (RF Attenuator), twice to select b) »VOL« (Volume offset), three times to select c) »IN-AMP« (Input Amplifier) or four times to select d) AFT (Automatic Fine Tuning). The selected item changes colour.

To adjust or change:

a) RF attenuator (ATT)

Using Δ + or ∇ - select »On« for the selected programme position. Press OK to confirm the selection. Repeat step 5 to attenuate other programme positions.

b) Volume offset (VOL)

Using Δ + or ∇ – you can adjust the volume level for the selected programme position within a range from -7 to +7. Press OK to store the volume level. Repeat step 5 to set the volume level for other programme positions.

c) IN-AMP (input amplifier)

Using Δ + or ∇ - select »Off« for the selected programme position. Press OK to confirm the selection. Repeat step 5 to switch off the input amplifier for other programme positions.

d) AFT

To reactivate AFT

(Automatic Fine

Tuning) Repeat from the

beginning and select »ON« in step 5. Using Δ + or ∇ – you can fine-tune the channel within a range from –15 to +15. Press OK to store the fine-tuned level. Repeat step 5 to fine-tune the other channels.

6 Press MENU to return to the normal TV mode.

| FUNTHER PRODUBLING PRESET | FROS ATT VOL. IMAN'P ATT | VOL. IMAN

Fig. 18

PRESET

MANUAL Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.

- 1 Press MENU to display the main menu.
- 2 Select the symbol of or »Preset« with ∆+ or ∇- and press OK. The PRESET menu appears.
- 3 Select »Manual Programme Preset« with Δ+ or ∇− and press OK.

The MANUAL PROGRAMME PRESET menu appears. (See Fig.19)

- 4 Using ∆+ or ∇-, select the programme position which you want to skip and press OK. The "SYS" position changes colour.
- 5 Press Δ + or ∇ until »- - « appears in the SYSTEM position. (See Fig. 20)
- 6 Press OK. (See Fig. 21) When you select programmes using the PROGR +/- bultons, the programme position will be skipped.
- 7 Repeat steps 4 to 6 to skip other programme positions.

PROGR

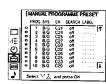


Fig. 19

Fig. 20

* 3 ---

Fig. 21

MANUAL PROGRAMME PRESET

If you have made a mistake: Press to go back to

the previous position.
To go back to main

menu: Keep pressing ←.

To go back to the normal TV picture: Press MENU.

Captioning a Station Name

Programme names are usually automatically taken from Teletext if available. You can also »name« a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

- Press MENU to display the main menu.
- Select the symbol for »Preset « with △+ or ∇- and press OK. The PRESET menu appears.
- 3 Select »Manual Programme Preset« with Δ+ or ∇- and press OK.

The MANUAL PROGRAMME PRESET menu appears. (See Fig. 22)

- 4 Using ∆+ or ∇−, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.
- 5 Select a letter or number with Δ+ or ∇- and press OK. The next element will be highlighted. Select other characters in the same way. If you want to leave an element blank, select – and press OK. (See Fig. 23)
- 6 After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin). Now the caption you chose is stored. (See Fig. 24)
- 7 Repeat steps 5 and 6 to caption names for other channels.

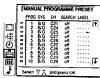


Fig. 2

0 2	83	C25	off	S
Fig. :	23			

PARENTAL LOCK

If you try to select a programme that has been blocked:
The message "LOCKED" appears on the blank TV screen.

Parental Lock

You can prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

- 1 Press MENU to display the main menu
- 2 Select the symbol for "Preset" with ∆+ or ∇- and press OK. The PRESET menu appears.
- 3 Select »Parental Łock« with ∆+ or ∇ and press OK. The PARENTAL LOCK menu appears. (See Fig. 25)
- 4 Using Δ+ or ∇-, select the programme position you want to block and press OK.
 - The symbol Ω appears in front of the programme number indicating that this programme is now blocked. (See Fig. 26)
- 5 Repeat step 4 to block other programme positions.

Cancelling blocking

- On the PARENTAL LOCK menu, select the programme position you want to unblock with ∆+ or ∇−.
- 2 Press OK
 - The symbol **a** disappears indicating that the blocking has been cancelled.

Tuning in a Channel Temporarily

You can tune in a channel temporarily, even when it has not been presot. Use the buttons on the Full-Function side of the Remote Commander.

- Press C on the Remote Commander. For cable channels, press C twice.
 - The indication "C" ("S" for cable channels) appears on the screen.
- 2 Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
 The channel appears.
 - However, the channel will not be stored.

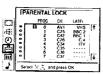


Fig. 25

PROG	CH	LABE
43 = 0	AV1	VHS
- 1	C25	BBC 2
- 2	C42	BBC 1
- 3	C26	C 4

Fig. 26

Watching the TV



If no picture appears when you depress ⊕ on the TV and if the standby indicator on the TV is lit, the TV is n standby mode. Press ⊖ or one of the number buttons to switch it on.

This section explains the basic functions you use while watching TV. Most of the operations can be done using the simple side of the Remote Commander.

Switching the TV on and off

Switching on

Depress @ on the TV.

Switching off temporarily

Press 0 on the Remote Commander.

The TV enters standby mode and the standby indicator on the front of the TV lights up.

To switch on again

Press (), PROGR +/-, or one of the number buttons on the Remote Commander.

Switching off completely

Depress @ on the TV.

Selecting TV Programmes

Press PROGR +/~ or the number buttons.

To select a double-digit number

Press -/--, then the number.

For example, if you want to choose 23, press -/--, 2 and 3.

Adjusting the Volume

Press 4/-.

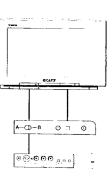
Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

Press $P - \checkmark \Rightarrow \bigcirc$ button repeatedly until the programme

number, ✓ (for volume), or ⊙ (for video input picture) appears. Then adjust with the -/+ buttons.

- Press -/+ buttons to switch on the TV from the standby mode.
- Press -/+ simultaneously to reset picture and sound controls to the factory preset level (RESET function).



For details of the teletext operation, refer to page 56

For details of the video input picture, refer to page 60



12

Watching Teletext or Video Input

Watching teletext

- Press (to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fastext operation.
- Press (PAGE +) or (PAGE -) for the next or preceeding
- To go back to the normal TV picture, press O.

Watching a video input picture

Press repeatedly until the desired video input appears. To go back to the normal TV picture, press .

More Convenient Functions

Use the Full-Function side of the Remote Commander

Displaying the on screen indications

- Press ⊕ once to display all the indications. They will disappear after some seconds.
- Press twice to have the programme number and label stay on screen. Press twice again to make indications disappear.

Muting the sound.

Press 🕸

To resume normal sound, press of again

Displaying the time

Press 3. This function is available only when teletext is

To make the time display disappear, press @ again.

Displaying the Programme Table

Press OK. A Programme Table will be displayed on the left side of the TV screen (See Fig.27).

Selecting TV programmes

Press PROGR +/- or select the desired programme position using ∆+ or ∇- and press OK.

To make the Programme Table disappear, press MENU

Freezing the Picture

When watching the TV you have the possibility to »freeze« the picture. Press M. Press the button again to return to the normal

Changing the Screen format

Press ET repeatedly to change the Screen mode as follows:

- 4:3 (4:3 picture)
- → Smart (imitation of 16:9 for 4:3 broadcast)
- → Zoom (imitation of 16:9 for movies broadcast in cinemascopic format)

- → PALplus (for PALplus broadcast)
- → Wide (for 16:9 broadcast).

See also page 54 for more information.



PICTURE CONTROL SOUND CONTROL



If you have made a

Press - to go back to the previous position To go back to the main

Keep pressing -To go back to the normal Press MENU.

· Hall Surround and Dolby Pro Logic are not available via headphones.

For setting the Balance See page 51 »Level settings«

Note on LINE OUT: The audio level and the dual sound mode output from the G+ jack on the rear correspond to the **HEADPHONES VOLUME** and DUAL SOUND

When watching a video input source with stereo

You can select DUAL SOUND to change the sound.

Adjusting and Setting the TV Using the Menu

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can reduce the picture noise. You can also select dual sound (bilingual) programmes when available, adjust the sound for listening with the headphones (Ω) . Also you have the possibility to adjust the sound to your individual taste using the Graphic Equalizer and special Sound effects.

1 Press ■ (for picture) or ♪ (for sound) on the Remote Commander.

Press MENU and select the symbol E for Picture Control or Sound Control, then press OK. The PICTURE CONTROL or SOUND CONTROL menu

- 2 Using $\Delta +$ or $\nabla -$, select the item you want to adjust and press OK. The selected item changes colour. (See Fig. 30)
- 3 Adjust the setting with ∆+ or ∇ and press OK. The cursor appears beside the next item (at the left margin)
- For the effect of each control, see the table below.

4 Repeat steps 2 and 3 to adjust other items.



Fig. 28

	SOUND CONTR	OL
e de com	Grafic Equatzer Surround-Mode Haff effect Dual Sound Of Volume Duil Sound (A)	[mone]
	Se'ect ⊻	s OK

a Brightness	
Fig. 30	
□ Brightness ■ Colour	

Fig. 31

Effect of each control

appears. (See Fig. 28 or Fig. 29)

PICTURE CONTROL	Effect	
Contrast	Less — More	
Brightness	Darker ——I-— Brighter	
Colour	Less More	
Hue (only for NTSC)	Greenish - I Reddish	
Sharpness	Softer ——I—— Sharper	
Reset	Resets picture to the factory preset levels.	
Noise Reduction	Off: Normal on: Reduction of picture noise in case of weak signals	
Digital Mode	1: Normal 2: LFR (Line Flicker Reduction) off	
SOUND CONTROL	Effect	
Graphic Equalizer	(See page 52 for more information)	
Surround Mode	Off: Normal → Dolby → Hall	
Hall Effect	Choice between different hall effects	
(only if »Hall« is on)	Room → Dome → Arena	
Dual Sound	A : left channel B : right channel Stereo Mono The selected mode of the A-CD-B indicator on the TV lights up.	
Headphones:	and the same of th	
Ω Volume	LessI More	
∩ Dual Sound	A: channel 1 → B: channel 2 → PAP (if PAP is switched on you can select the PAP sound for the headphones)	
	Stereo → Mono	

BBC TV5 SAT TV5 CO2 C15 RTL SKY S34 AV1 MTV

Fig. 27

Notes:

Make sure to

(See page 39).

· Select »On« for

receiving Dolby

programmes.

Surround encoded

• This adjustment is

necessary only once

when you install the

or change their

positions

TV and the speakers

to the set.

connect your own or

the supplied speakers

Dolby Pro Logic when

Dolby Pro Logic Set Up

With Dolby Pro Logic Surround you can experience »three dimensional« sound when receiving Dolby Surround encoded programmes.

This menu enables you to adapt the Dolby Pro Logic Surround features to your individual requirements.

Adjusting the sound level of the speakers

Dolby Pro Logic uses 4 sound channels to supply 5 speakers: Left and Right: Left and right TV speakers Centre: Centre speaker for dialogues Surround: Surround speakers for surround sound effect Using »Level Settings« a noise generator enables you to adjust the sound levels of the speakers to your individual listening position. From your listening position all sound levels should be

- 1 Press MENU, select the symbol ₩ on the screen for »Preset« and press OK. Then select »Installation« and »Dolby Pro Logic Set Up« using ∆+ or ∇- and press OK. The DOLBY PRO LOGIC SET UP menu appears. (See Fig. 32)
- 2 Press OK. The cursor moves to L (sound level of the left speaker) (See Fig. 33) and you hear a test tone from the left speaker.
- a) To change the level: Press OK and adjust the highlighted bar by pressing ∆+ or ∇repeatedly. Press OK to confirm the adjustment
- b) To go on the next bar: Press ∆+ or ∇- to select Centre, Right or Surround. Adjust using step 3a).
- 4 Repeat steps 3a and b to adjust all sound levels.
- 5 Press ← to exit »Level Settings« and Menu to return to the normal TV screen.

Setting Speaker Mode and Delay Time

- 1 Using Δ+ or ∇- select »Dolby Pro Logic Set Up« in the Installation menu and press OK.
- 2 Press ∇- to select »Speaker Mode« and press OK. Using ∆+ or ∇- select Normal: if all speakers are activated Phantom: if the centre speaker is not used 3 stereo: if the surround speakers are not used Press OK to confirm your selection.
- 3 Press ∇- to select »Delay Time« and press OK. You can select a time delay for the sound of the surround speakers which depends on your room size (e.g. 20ms for standard rooms, 30 ms for small rooms) 15 ms → 20 ms → 25 ms → 30 ms

Press OK to confirm your selection.

4 Press MENU to return to the normal TV screen

made in »LISER« mode will be stored. All other settings are reset to factory-set level when you change to another mode.

TIMER

Ing time:

Press ①.

To switch off the

Select »OFF« in step 3.

To check the remain

To go back to the normal TV picture:

Note: The modifications



o Speaker Mode [off] o Delay Time [25ms]

Select ∑ ★ and press OK

-Select ☑ 🖒 and press OK

DOLBY PRO LOGIC SET UP

e Level Settings
of Left
of Cantra
of Right
of Surround

Fig. 33

Graphic Equalizer

Using this function you can individually adjust the sound by cutting and boosting selected frequencies. You can also select between the following modes:

Flat → Pop → Rock → Jazz → Vocal → User

- Select »Sound Control« in the main menu, then select »Graphic Equalizer« using Δ + or ∇ - and press OK. The GRAPHIC EQUALIZER menu appears (See Fig. 34).
- 2 Pross OK. The colour of »Mode« changes. Select the desired mode with Δ + or ∇ - and press OK.
- 3 If you want to modify a mode, select the desired bar of a frequency band using $\Delta +$ or $\nabla -$ and press OK. The selected frequency changes colour. Using ∆+ or ∇- adjust the level of frequency and press OK. In this way you can adjust all 5 graphic bars.
- 4 Press MENU to return to the normal TV mode.

Preset Dolby Pro Logic

To enjoy programmes encoded in Dolby Surround sound, switch on »Dolby Pro Logic« in the sound menu.

1 Press > on the Remote Commander.

The SOUND CONTROL menu appears.

- 2 Using ∆+ or ∇-- select »Surround Mode« and press OK.
- 3 Using ∆+ or ∇- select »Dolby« and press OK.

After the end of the broadcast make sure to return the setting to »OFF«.

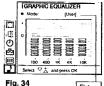
Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

- Using $\Delta +$ or $\nabla -$ select the symbol $\mathfrak G$ for »Timer« and press OK. The TIMER menu appears (see Fig. 35).
- Press OK. The time period option changes colour.
- Select the time period with $\Delta +$ or $\nabla -$. The time period (in minutes) changes as follows: 10 >20 -30 +40 -50 -60 -70 -80 -90

message is displayed on the screen.

4 After selecting the time period, press OK. The cursor moves back to the left margin and the timer starts One minute before the TV switches into standby mode, a



Flat Pop Rock Jazz Vocal



Fig. 35

51 52



Notes:

- RGB input source cannot be displayed in PAP.
- PAP is not available in the Zoom mode or the PALplus mode.
- The sound of the right screen is only available via the headphones.
- The picture quality of the TV screen and PAP may differ.

With this function you can display two screens at the same time. In this way you can watch two TV programmes at the same time. Also you can watch or monitor the video output from any connected equipment (for example from a VCR) white watching TV or vice versa. For information about connection of other equipment, refer to page 59.



Switching PAP on and off

Press (to display the screens in 8:9 format.

Press twice to display the screens in 4:3 format.

The PAP screen will be displayed next to the main TV screen. The PAP screen will come from the source chosen when the TV was last used.

To switch PAP off Press (1) repeatedly

Selecting a PAP source

Press

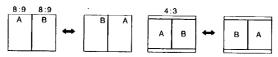
The symbol † will be displayed at the bottom, left-hand corner of the screen.

Press PROGR +/-, the number buttons or ① to select the desired source for the PAP screen.

Swapping screens

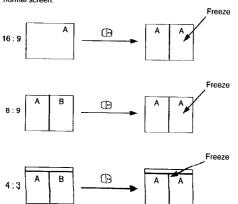
Press @

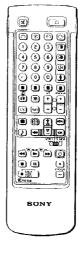
The main screen will switch the picture with the PAP screen



Freezing the picture

You have the possibility to »freeze« the picture of the PAP screen. Press
once to freeze and twice to return to the normal screen.





Operating Screen Mode/PAP using the Menu

Using the Screen Mode menu you have the possibility to change the aspect ratio for the TV display for wide screen effects, operate the PAP Mode, preset Auto Pal plus or reproduce the main picture image by image (Strobe function).

- 1 Press MENU to display the main menu.
- 2 Select the symbol

 ☐ for »Screen Mode« with △+ or ∇- and press OK. The SCREEN MODE menu appears (See Fig. 36).

You have the choice among the following modes:

4:3: for normal ratio 4:3 (See Fig. 37)

Smart: imitation of wide screen effect (16:9) for 4:3

broadcasts (See Fig. 38).

Zoom: imitation of wide screen effect (16:9) for movies

broadcast in cinemascopic format (See Fig. 39).

or

PAL plus: for PAL plus broadcasts.

Wide: for 16:9 broadcasts (See Fig. 40).

a) Changing the Screen position (only for Zoom mode)

When using the Zoom mode part of the picture at the top and bottom will be cut off. With the help of the function "Screen position" you can move the screen up- or downwards in order to see the cut-off part of the screen (e.g. to read the subtitles).

Using Δ + or ∇ - select »Screen position« and press OK. The selected item changes colour. Using Δ + or ∇ - adjust the screen position and press OK.

b) Strobe Mode

Using Δ + or ∇ - select »Strobe« and press OK. Now the TV picture is displayed image by image, creating a slow motion effect (See Fig. 41). Using Δ + or ∇ - select the speed of the motion (3 different speeds are available). Press OK to return to the normal TV mode.

c) Switching PAP on and off

Using Δ + or ∇ - select »PAP« and press OK. Using Δ + or ∇ - select »1« to display the PAP screen in 8:9 format, »2« for 4:3 format and »OFF« to switch it off and press OK.

d) Freezing the PAP screen

Using Δ + or ∇ – select »Clip Board« and press OK. Using Δ + or ∇ – select »On« to freeze the PAP screen and »Off« to restore the normal picture.

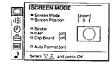


Fig. 36

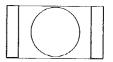


Fig. 37



Fig. 38



Fig. 39

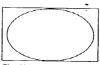


Fig. 40



Fig. 41

Notes:

 Teletext errors may occur if the broadcasting signals are weak.



Note: Fastext operation is only possible, if the TV station broadcasts Fastext signals.

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

- Select the TV channel which carries the teletext broadcast you want to watch.
- 2 Press (2) to switch on teletext.

A teletext page will be displayed (usually the index page), If there is no teletext broadcast, "No text available" is displayed on the information line at the top of the screen.

To switch teletext off

Press O.

Selecting a teletext page

With direct page selection

Use the number buttons to input the three digits of the chosen page number.

If you have made a mistake, type in any three digits. Then reenter the correct page number.

With page-catching

- 1 Select a teletext page with a page overview (e.g. index page).
- Press OK. Using ∆+ or ∇-, select the desired page. "Page Catching" will be displayed on the information line. Press OK. The requested page will appear in a few seconds.

Press @ to resume normal teletext reception.

Accessing the next or preceding page

Press (PAGE +) or (PAGE -).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

- . Press @ once in teletext mode or twice in TV mode.
- . Press @ again to resume normal teletext reception.

Preventing a teletext page from being updated

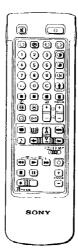
- Press ⊕ (HOLD). The HOLD symbol » ⊕ « is displayed on the information line.
- Press

 to resume normal teletext reception.

Using Fastext

With Fastext you can access pages with one key stroke. When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.

Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after some seconds.



Note: Some of the features may not be available depending on the Teletext service.



To cancel the request: Select »OFF« for the TIME PAGE setting.

Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

- Press MENU. The menu will be superimposed on the teletext display. (See Fig. 42).
- 2 Using ∆+ or ∇-, select the teletext function you want and press OK. (See Fig. 43).

USER PAGES/PRESET USER PAGES

See page 58 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlargo the teletext display with the ability to scroll up and down the screen. After having selected the function, an information line Top/Bottom/Full will be displayed. (See Fig. 44).

Press Δ + for »Top« to enlarge the upper half. For »Bottom« keep pressing ∇ –, to enlarge the lower half. Press OK for »Full« to resume the normal size.

Press (2) to resume normal teletext reception.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be captured (The symbol changes colour) (See Fig. 45). Press ② to view the requested page.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line »REVEAL ON/OFF« will be displayed. (See Fig. 46).

Using Δ $_{1}$ or ∇ -, select ON to reveal the information or OFF to conceal it again. Press = to resume normal teletext reception.

TIME PAGE

Your teletext service will inform you, if a time coded page is available. You may have a page (e.g. an alarm page) displayed at a certain time

- 1 Press OK. An information window will be displayed at the bottom of the page. Using Δ+ or ∇− select ON and press OK.
- To select the desired page, enter the three digits of the page number (e. g. 301) using the number buttons
- 3 To select the time, enter four digits for the desired time (e.g. 1800) using the number buttons. Press MENU. The selected time is displayed at the top in the left-hand corner. At the requested time, the page will be displayed. Press (=) to resume normal teletext mode.

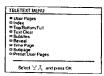


Fig. 42



Fig. 43



Fig. 44



Fig. 45



Fig. 46

56

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROGR+/- or the number buttons. (e.g. enter 0002 for the second page of a sequence).

User Page Bank System

You can store up to 30 pages in the »Teletext page bank system«. In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 »banks« (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

- Press @ (if Teletext is not on already) and MENU to show the TELETEXT MENU display.
- 2 Select PRESET USER PAGES with Δ+ or ∇- and press OK.
- Select the desired bank with ∆+ or ∇- and press OK. The cursor will go to the first position (P1) of the preferred pages.
- 4 Input the three digits of your first preferred page with the number buttons and press OK. The cursor will go to the second position.
- 5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number. After having finished the presetting press OK repeatedly until the cursor appears besides the next bank at the left margin.
- 6 Select Allocate Bank with ∆+ or ∇- and press OK.
- Select the programme position for which you have preset pages with $\Delta +$ or $\nabla -$ and press OK. (See Fig. 47)
- Select the desired bank with $\Delta +$ or $\nabla -$ (Banks A to E are available) and press OK.
- Repeat steps 3 to 8 for the other 4 banks available

Displaying User Pages

- Select MENU.
- Select User Pages with ∆+ or ∇- and press OK. A table of the stored preferred pages will be displayed.
- 3 Select the desired page with $\Delta +$ or $\nabla -$ and press OK. The page will be displayed after some seconds.

You can use the coloured buttons on the Remote Commander to have quick access to the first four User pages. Page 1 corresponds to the red button, P 2 to the green one, P 3 to the yellow one and P 4 to the blue button.

To select the desired page press the respective coloured button while you are in TV mode. Now the Page number of this teletext page will appear in white at the top in the left-handed corner of the TV screen. When the page number changes colour, the page is available. Press the coloured button again to display the page.

Selecting input with PROGR +/- or

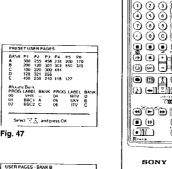


Fig. 47

PAGE 200
PAGE 200
PAGE 203
PAGE 500
PAGE 234
PAGE 159

Fig. 48

Sciect $\stackrel{\nabla}{\underline{\wedge}}$ and press OK

number buttons: You can preset video input sources to the programme positions so that you can select them with PROGR +/or number buttons. For details, see "Preset channels manually" on page 41

(B)

000 0000 0007 0 0 **9** $\Theta \odot \odot \mathbf{D}$ ம் டாதான (**100**) **6** 6 6 0 9 SONY

Selecting input and output

This section explains how to view the video input picture (of the video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

Selecting input

Press Tepeatedly to select the input source. The symbol of the selected input source will appear.

To go back to the normal TV picture Press O.

Input modes

Symbol	input signal
Ð 1	Audio/video input through the - in connector
Ü	RGB input through the 충화t connector
⊕ 2	Audio/video input through the ⊕2/-®2 connector
- ⊛ 2	S video input through the ⊕2/-@2 or -@2 connector
⊕ 3	Audio/video input through ⊕3 and ⊕3 connectors at the front
—⊛ 3	S video input through the -33 connectors (4-pin connector) at the front
⊕ 4	Audio/video input through the ⊕4/- ⊚4 connector
- ⊙ 4	S video input through the 34/34 or 34 connector (4-pin connector

Selecting the output

The 32 32 connector outputs the source input from the other

Press C+ repeatedly to select the output. The symbol of the selected output source appears.

Output modes

Symbol	⊕2/-⊕2 connector outputs	
1 🕩	The audio/video signal from the ⊕1 connector	,
2 →	The audio/video signal from the ⊕2/-®2 connector	
2 🕞	The audio/video signal from the ⊕2/-® connector	
3 🕞	The audio/video signal from the €3, €3 connectors	
3 🕏	The audio/video signal from the -ூ3, -⊕3 connectors	
4 🕞	The audio/video signal from the ⊕4/-⊛4 connector	
4 ⑤→	The audio/video signal from the 🕒 4/-3 4 connector	
TV⊖	The audio/video signal from the TF aerial terminal	

Using AV Preset

Using this function you can preset the desired input source (e.g. ⊕1, RGB signal) to the respective AV input (AV 1⊕). In this way a connected VTR will automatically switch to the

- press OK.
- 2 Select first »Installation«, then »AV Preset« with $\Delta +$ or ∇ and press OK. The AV PRESET menu appears (See Fig. 49).
- 3 Select the desired AV input with ∆+ or ∇- and press OK.



①1

Fig. 49

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AV 3 YC3 or AV AV 4 YC or AV

- 5 If you want to name the AV input solect »Label« using A + or ∇ and press OK. Select a letter or a number with Δ + or ∇ and press OK. The next element will be highlighted. Select other characters in the same way. If you want to leave an element blank, select and press OK.
 - After having selected all the characters, press OK repeatedly until the cursor appears by the next AV input at the left margin.
- 6 If you want to preset PAL plus selection for a AV input, select PAL + with ∆+ or ∇- and press OK. Using ∆+ or ∇- select *On« if PAL plus should be selected automatically, or *Off« if not. Press OK to confirm the selection.
- 7 Repeat steps 3 to 6 for the other AV inputs.

Checking and selecting the Input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen and PAP screen, and which output source is selected. You can also select them on the menu display.

 Select the symbol it or »Video Connection« with Δ+ or ∇and press OK. The VIDEO CONNECTION menu appears. (See Fig. 50)

You can see which source is selected for the TV and PAP input, and for the output, If you want to select the input and output on this menu, go on to the next step.

- 2 Select TV Screen (input source for the TV screen), PAP(input source for the PAP screen), or output (output source) with Δ+ or ∇- and press OK. One of the source items changes colour.
- 3 Select the desired source with Δ+ or ∇-. For details about each source, see the table on page 60.
- 4 Press OK.
- The selected source is confirmed, and the cursor appears.
- 5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control other Sony remote- controlled video equipment. The buttons for video operation have been factory-set to control most of Sony video equipment, such as: Beta, 8mm or VHS VCRs or video disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta VCR

VTR 2: 8mm VCR

VTR 3: VHS VCR

MDP: Video disc player

 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate

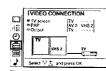


Fig. 50

When recording When you use the (record) button, make sure to press this button and the one to the right of it simultaneously.

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SONY

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For Your Information

Troubleshooting

Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	Plug the TV in.
	 Press
	Check the aerial connection.
	Check if the selected video source is on.
	 Turn the TV off for 3 or 4 seconds and then turn it on again using ①.
Poor or no picture (screen is dark), but good sound	Press ■ to enter the PICTURE CONTROL menu and adjust "Brightness«, "Contrast« and "Colour«.
Poor picture quality when watching an RGB video source	Press
Poor picture quality of PAP screen	• Press 🔁.
Good picture but poor or no sound	Press + If if if if if if if if
No colour for colour programmes	 Press to enter the PICTURE CONTROL menu, select RESET, then press OK.
Remote Commander does not function.	Replace batteries.

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

Auto PAL plus

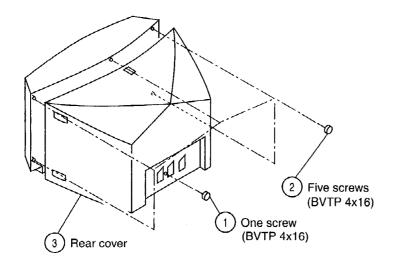
PAL plus is a new broadcasting system with the following features:

- Backward compatibility to the PAL standard
- Broadcasting in 16:9 format
- Improved video signal quality (The resolution is 576 lines against 432 lines in conventional 16:9 programmes)

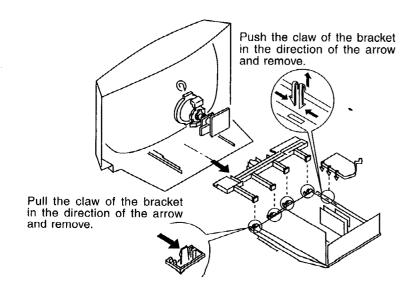
If you preset AUTO PAL plus to ON and the PAL plus signal is being transmitted, the screen mode automatically changes from any mode to the PAL plus mode (See page 52). When the PAL plus programme is finished, the screen mode automatically returns to the previous mode.

- 1 Press MENU to display the main menu.
- 2 Select the symbol ☐ for »Screen Mode« with △+ or ∇- and press OK. The SCREEN MODE menu appears.
- 3 Select »Auto Format« with ∆+ or ∇- and press OK.
- 4 Select ON or OFF with Δ + or ∇- and press OK.

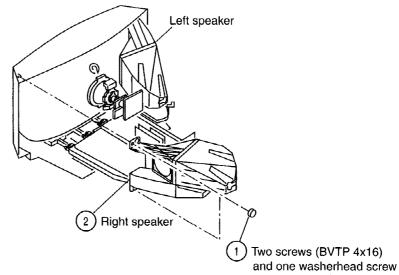
2-1. REAR COVER REMOVAL



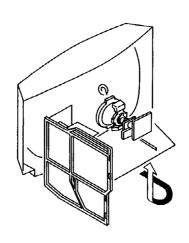
2-3. CHASSIS ASSY, H AND T BRACKET REMOVAL



2-2. SPEAKER REMOVAL



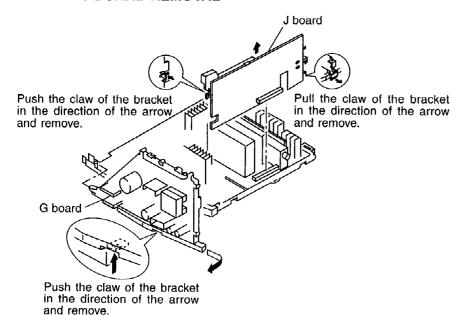
2-4. SERVICE POSITION



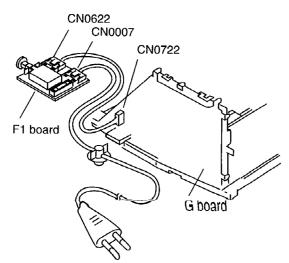
18-

SECTION 2 DISASSEMBLY

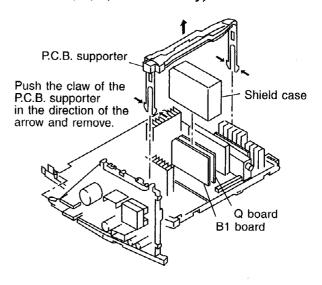
2-5. G AND J BOARD REMOVAL



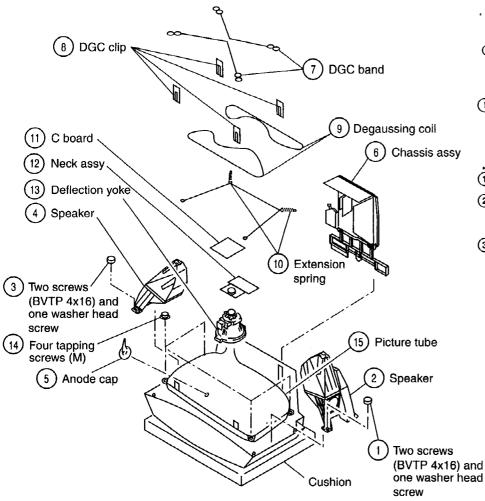
2-7. WIRE DRESSING



2-6. B1 AND Q BOARD REMOVAL (KV-28WS3A, D, E, K and U only)



2-8. PICTURE TUBE REMOVAL



REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.



(1) Turn up one side of the rubber cap in the direction indicated by the arrow(a)

(2) Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow(b)



(3) When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow(c)

HOW TO HANDLE AN ANODE-CAP

- 1 Don't damage the surface of anode-cap with sharp shaped material!
- (2) Don't press the rubber hardly not to hurt inside of anode-caps! A metal fitting called as shatter-hook terminal is built into the rubber.
- (3) Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or damage the rubber.





SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustment with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches as follows.

Contrast normal Brightness normal

- Carry out the following adjustments in this order:
- 3-1. Beam landing
- 3-2. Convergence
- 3-3. Focus
- 3-4. White balance

Note: Testing equipment required.

- 1. Colour bar/pattern generator
- 2. Degausser
- 3. Vector scope

3-1. BEAM LANDING

Preparation:

- 1. In order to reduce the influence of geomagnetism on the set's picture tube face it in an easterly or westerly direction.
- 2. Switch on the set's power and degauss with the degausser.

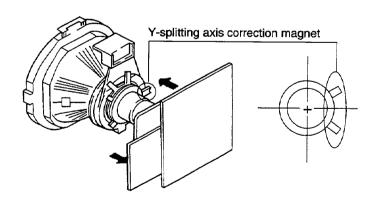
(1) Adjustment of Correction Magnet for Y-Splitting Axis

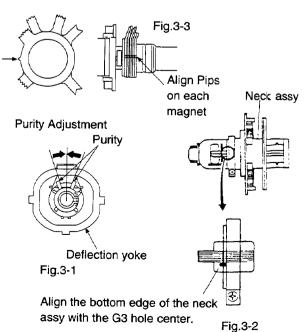
- 1. Input a crosshatch signal from the pattern generator.
- Picture control is minimum and brightness control is still normal.
- 3. Position the neck assy as shown in Fig. 3-2.
- 4. Move the deflection yoke forward to touch the CRT.
- 5. Adjust the upper pin and the lower pin symmetrically by opening or closing the Y-splitting axis correction magnets on the neck assy.
- 6. Return the deflection yoke to its original position.

(2) Landing

Note: Before carrying out the following adjustments adjust the magnets as indicated below (See Fig. 3-3).

- Input an all-white signal from the pattern generator.
 Maximize the picture setting and adjust the brightness setting.
- 2. Rough-adjust the focus and horizontal convergence.
- 3. Loosen the deflection yoke screws, align the purity adjustment knob to the central position. (See Fig. 3-1)
- 4. Switch from the all-white pattern to an all-green pattern.
- 5. Move the deflection yoke backwards and adjust with the purity magnet so that the green is at the center and it aligns symmetrically. (See Fig. 3-4)
- 6. Move the deflection yoke forward and adjust so that entire screen becomes green.
- 7. Switch the raster signal to red, then to blue and verify the landing condition.
- 8. When the position of the deflection yoke has been determined, fasten the deflection yoke with the screw.
- 9. If the beam does not land correctly in all the corners, use magnets to correct it. (See Fig. 3-5)





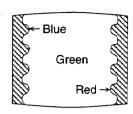
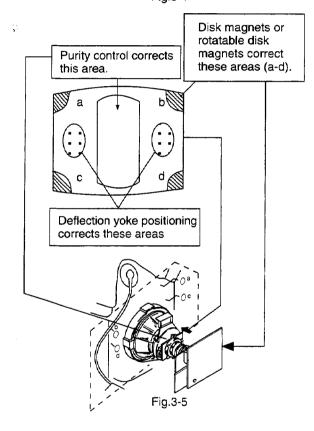


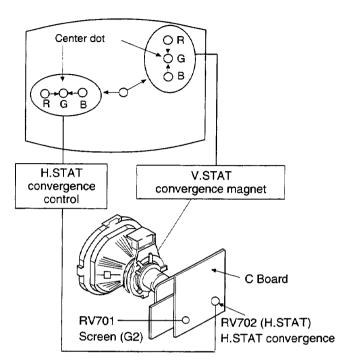
Fig.3-4



3-2. CONVERGENCE

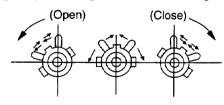
(1) Screen center convergence (Static convergence)

- 1. Input a dot signal from the pattern generator. Normalize the picture setting.
- (Moving horizontally), adjust the H.STAT control so that the horizontal red, green and blue dots coincide at the center of screen.
- (Moving vertically), adjust the V.STAT magnet so that the vertical red, green and blue points coincide at the center of screen.

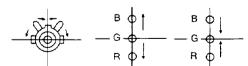


• If the horizontal dots are unable to coincide with the variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.

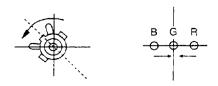
(Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



- 4. Movement of the red, green and blue dots by tilting the V.STAT magnet and by opening or closing the V.STAT magnet.
- ① By opening or closing the V.STAT magnet, the red, green and blue points move as shown below



②By rotating the V. STAT magnet counterclockwise, the red, green and blue dots move as shown below.

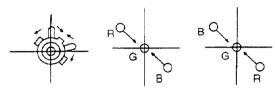


③By rotating the V.STAT magnet clockwise, the red, green and blue dots move as shown below.

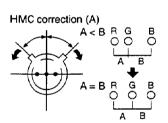


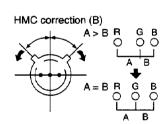


(4) By opening or closing the V.STAT magnet, the red, green and blue dots move as shown below.

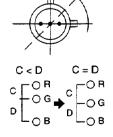


- If the blue dot does not coincide with the red and green points, correct the points by using the BMC (Hexapole) magnet.
- (vertical mis-convergence) by using the BMC (Hexapole) magnet.
- ①HMC correction by BMC (Hexapole) magnet and movement of the electronic beam.

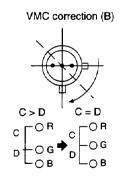




② VMC correction by BMC (Hexapole) magnet and movement of the electronic beam.



VMC correction (A)



Layout of each control

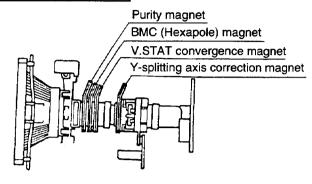
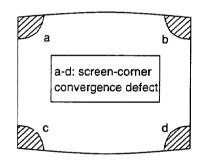
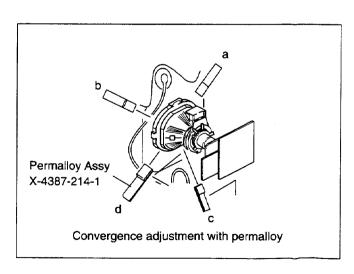


Fig.3-5

• If you are unable to adjust the corner convergence properly, correct them with the use of permalloys.

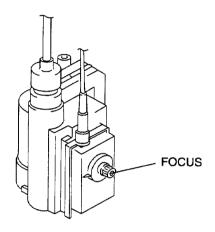






3-3. Focus

- 1. Receive a television broadcast signal.
- 2. Normalize the picture setting.
- Adjust the focus control on the flyback transformer for the best focus at the center of the screen.
 Bring only the center area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. Screen (G2), White balance (Adjustment in the service mode with remote commander)

G2 adjustment (RV702)

- 1. Input a dot signal from the pattern generator.
- 2. Set the Picture, Brightness and Colour to minimum.
- 3. Apply 170V DC from an external power supply to the R, G and B cathodes of the CRT.
- 4. Whilst watching the picture, adjust the G2 control RV701 [SCREEN] on the C board to the point just before the return lines disappear.

White balance adjustment

- 1. Receive an all-white signal.
- Enter into the Service Mode by pressing 'TEST',
 'TEST' and '01' on the Service Commander.
- 3. Select 'CRT Driver' from the on screen menu display and press OK.
- 4. The 'CRT Driver CXA1840' menu will appear on screen.

CRT Driver CXA 1840

Crt	Driver	CXA1840
21	R DRIVE	41
22	G DRIVE	adj
23	B DRIVE	adj
24	R CUT-OFF	8
25	RC	0
26	G CUT-OFF	adj
27	GC	0
28	B CUT-OFF	adj
29	ВС	0
30	AFC MASK	0
31	DRIVE LVL	52
32	SUB BRT	32
33	H SWEEP SW	on
34	SKEW D	off
35	OUT DC	0

- 5. Set picture to MAX.
- 6. Set the 'R DRIVE' to 41.
- 7. Adjust the 'G DRIVE' and 'B DRIVE' with the

 buttons so that the white balance becomes optimum.

 ▼
- 8. Press the OK button to write the data for each item.
- 9. Set picture to MIN.
- 10. Adjust 'R CUT-OFF', 'G CUT-OFF' and 'B CUT-OFF' with the

 ▼ buttons so that the white balance becomes optimum.
- 11. Press the OK button to write the data for each item.

SECTION 4 CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-838.

HOW TO ENTER INTO SERVICE MODE

Turn on the main power switch of the set while pressing the +
 (plus) and - (minus) buttons on the customer front panel.

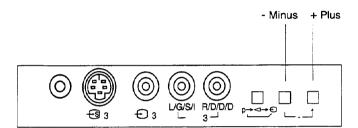
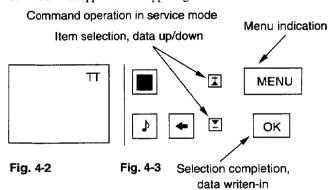


Fig. 4-1

2. "TT" will appear on the upper right corner of the screen.



 Press "Test" "Test" and 01 on the commander to get the menu on screen.

AE V7-62	AE-3	08/06/95
Init TV		
PIP Adjust		
Adjustments		
Video Contr		
CRT Driver		
Dynamic Conv		
Video Proc		
PIP		
PIP Dynamic		
Aspect / Field		
PAP		
SRC		
TDA6812		
PALPLUS		
TDA9160		
TDA9145		

- 4. Press the and buttons on the remote commander to select the adjustment item.
- 5. Press the OK button to proceed to the next menu.
- 6. If the adjustment item is 'CRT Driver', press the button to move to 'CRT Driver'.
- 7. The Menu as indicated in Fig 4-5 will appear on the screen.

	CRT Driver	CXA1840
1	V POS	adj
2	V SIZE	adj
3	V LIN BAL	adj
4	V LIN	adj
5	V SCROLL	127
6	V ASP PAP	2
7	H POS	adj
8	H SIZE	adj
9	H PIN CUSH	adj
10	H TILT	adj
11	H UP COR	adj
12	H LOW COR	adj
13	AFC V BOW	adj
14	AFC V ANGLE	adj
15	V COMP	5

Fig. 4-4

- 8. Press the \square button to move > to the adjustment item and press the $\square N$ button.
- 9. Press the ☑ and ☑ buttons to change the data in order to comply with each standard.
- 10. Press the OK button to write data into memory.
- 11. Turn off the power to quit the service mode when adjustments have been completed.

CXA1839 (VIDEO CONT)

Item No	Adjustment item	Data Amount	
1	SUB BRT	8	
2	SUB COL1	8	
3	SUB CONT1	8	
4	PIC	53	
5	HUE	31	
6	COL	31	
7	BRT	31	
8	SHP	31	
9	SUB HUE	7	
10	D.COIL	off	
11	11 SHP LIM		
12	AGE WHT	off	
13	R-Y/R	13	
14	R-Y/B	15	
15	G-Y/R	7	
16	G-Y/B	5	
17	RGB LEV2	8	
18 SUB SHP		3	
19	SUB FO	1	
20	PRE/OVER	0	
21	NR LEVEL	1	
22	DC TRAN	0	
23	DYN PIC	1	
24	CEC LEVEL	2	
25	VM LEVEL	2	
26	ABL MODE	1	
27	DYN ABL	off	
28	Y SYM SW	off	
29	AGE BLK	off	

CXD2035 (ASPECT)

Item No	Adjustment item	Data Amount
1 COMPRESS		7
2	FRAME WID	5

CXD2030 (VIDEO PROCESSOR)

Item No	Adjustment item	Data Amount
1	DNR	on
2	DNR VALUE	5
3	TA SYN CLP	16
4	TB BGP	50
5	TD CLP	25
6	FOTO CD SW	off
7	BLK PORCH	16
8	NT TD BGP	25
9	PAL TD BGP 25	
10	N.SECAM TB 50	
11	SECAM TB 50	
12	358 NR LVL 3	
13	13 443 NR LVL 5	

CXD2031 (PAP)

Item No	Adjustment item	Data Amount
1	M.PH.WR.ST	45
2	S.PH.WR.ST	34
3	M.RD. START	40
4	BRT SUB	8

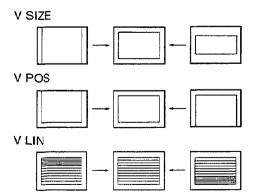
Typical Value (OSD based) when receiving PAL Philips pattern.

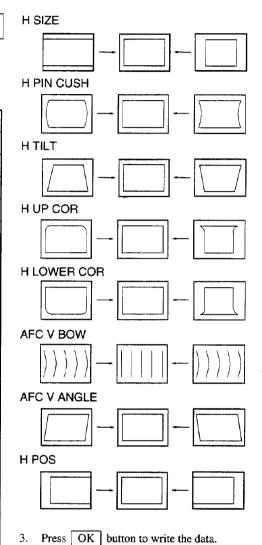
DEFLECTION SYSTEM ADJUSTMENT

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- Enter into the service mode and select 'CRT Driver'. The 'CRT Driver' CXA1840' adjustment menu will be displayed.
- 2. Select and adjust each item in order to get an optimum image.

Item No	Adjustment item	Data Amount
1	V POS	adj
2	2 V SIZE	
3	V LIN BAL	adj
4	V LIN	adj
5	V SCROLL	127
6	V ASP PAP	2
7	H POS	adj
8 H SIZE		adj
9	H PIN CUSH	adj
10	H TILT	adj
11 H UP COR		adj
12	12 H LOW COR	
13 AFC V BOW		adj
14	AFC V ANGLE	adj
15	15 V COMP	
16	16 H COMP	
17	WV CENT RF	144
18	WV AREA RF	36
19	W CENT VCR	160
20	W AREA VCR	20





If the menu display prevents viewing the screen while carrying out the adjustments, it can be removed by pressing on the remote commander. Pressing of once again will restore the menu on screen.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

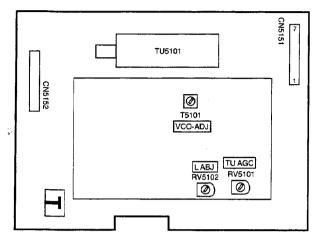


Fig. 4-5 - T Board Component Side -

IF Coil Adjustments (T5101) A, B, D, E, K and L models

- 1. Input a 38.9Mhz signal to the IF testpoint on the T-Board.
- 2. Receive a channel so that the IC5103 is selected for system B/G.
- 3. Measure the voltage at the AFT testpoint (Pin 7 of CN5151) and adjust T5101 to obtain 2.5V+/-0.2V.

IF Coil Adjustment (T5101) UK models only.

- 1. Input a 39.5Mhz signal to the IF testpoint on the T-Board.
- 2. Receive a channel so that the IC5103 is selected for system I.
- 3. Measure the voltage at the AFT testpoint (Pin 7 of CN5151) and adjust T5101 to obtain 2.5V+/-0.2V.

L Band 1 Adjustment (RV5102) for B models only

- 1. Input a 34.1Mhz signal to the IF testpoint on the T-Board.
- Receive a channel so that the IC5103 is selected for (System L Band 1).
- 3. Measure the voltage at the AFT testpoint (Pin 7 of CN5151) and adjust T5102 to obtain 2.5V+/-0.2V.

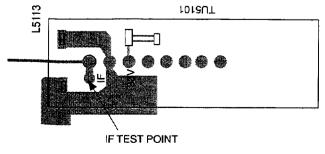
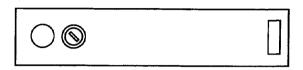


Fig. 4-6

AGC Adjustment (IF Block)



- IF Block top side -

Fig. 4-7

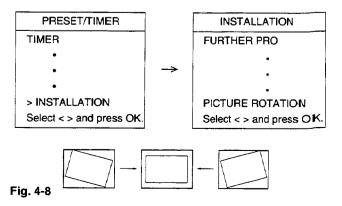
- 1. Receive an off-air signal.
- 2. Adjust the AGC VR so that there is no snow noise and cross-modulation visible on the screen.
- 3. Change the receiving channel and confirm status.

Sub Brightness Adjustment

- 1. Input a Phillips pattern.
- 2. Select 'RESET' from the menu to normalize the set.
- 3. Set the CONTRAST to minimum.
- 4. Press "Test" "Test" and 01 on the remote commander.
- Adjust the BRIGHTNESS with the +/- buttons on the remote commander after selection of 'Sub Bright' so that the 0 IRE section of the gray scale is completely cut off and the 20 IRE section is only just visible on the screen.
- 6. Press 'MENU' and '0' twice to release Test mode 2.
- 7. Select 'RESET' from the menu to normalize the set.

Picture Rotation Adjustment

- 1. Input a PAL color bar signal.
- Press the MENU button on the commander to get the menu on screen.
- 3. Press the ☑ and ☑ buttons of the commander and move > to PRESET/TIMER followed by INSTALLATION and PICTURE ROTATION.



4-3. TEST MODE 2:

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Is available by pressing the Test button twice, OSD "TT" appears. The functions described below are available by pressing the two numbers. To release Test Mode 2, press 0, 10, 20 ... twice or switch the TV into Standby Mode. Pressing the two Local Control buttons (+ and -) during Power ON will also switch into "TT" mode.

In TT mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the menu to reappear. The Function is kept even when the menu is not displayed!!

	Cuttab basista named manda. TT mada aff		
00	Switch back to normal mode - TT mode off		
01	Switch service menu on		
02	Direct access to Noise reduction		
03	Set Volume to 30%		
04	Service Menu in "Service Mode"		
05	Service Menu in "Production Mode"		
06	Set Volume to 80%		
07	Aging mode		
08	Shipping condition (Production request) To ensure that all TV sets leave the Production with the same pressettings. Programme 1 is selected, AV IN is set to AV1, AV Out is set to TV Out, Volume and HP Volume is set to 35%, Resolution is set to high, Format is set to 4:3, Pip is set to Top Left position, Pip is switched off, TT mode is switched off, all analogue values are set to the reset setting, space Sound - Equalizer - Loudness = off, DNR off, Dig. Mode = 1, Wide Zoom Mode for 28W models, Menu Language Reset, Prog. Pointer table reset Non Interlace is allowed in Text mode.		
09	Language reset. With this function the "Language Byte" in the NVM (Bank 0AAH Address 0DCH) is erased (set to 0FFH). The Language Menu appears now automatically when the TV set is switched ON as long as no new language is selected.		
10	The TT number will be deleted. All numbers with 0 (10, 20, 30, 40, 50, 60, 70, 80, 90) will reset the TT number. A new number can be selected. TT display is kept		
1 1	Direct access to Balance. With Cursor Up/Down the Balance can be controlled (w/o OSD, Menu display)		
12	Direct access to Hue. With Cursor Up/Down the Hue can be controlled (w/o OSD, Menu display)		
13	Dispaly of Software Version and TV set configuration		
14	Production Info Display		
15	Read factory setting from ROM (Program code) and store this data at Last Power Memory data location (The previous last power memory data is overwritten) AE3 has 3 packages of Analogue data: 1. Last Power memory data. This data is sent continiously to the corresponding IC's (TDA1839, SC, TDA6812) with this data the TV picture/sound appears. 2. Reset data. By presssing "Reset" in the menu this data is transfered from Reset Data location to the Last Power data location in the NVM. That means the Last Power Memory Data is overwritten by the Reset data last Power memory and Reset data is now the same. 3. Factory fixed data. Fixed data is held in the ROM code of the micro processor (ROM can't be changed)		

e menu i	s not displayed!!		
16	Save actual Last Power Memory data at Reset Data location)The previous Reset data is overwritten)		
15/16	With these two functions, it is possible to preset user defined Reset values (just TT16) or to preset factory defined Reset values (first TT15 then TT16)		
1 7	This function presets the Labels for the AV sources: AV1, RGB, AV2, YC2, AV3, YC3, AV4, YC4.		
18	Text possible On/Off selection of Text (toggle function)		
19	Direct access to Stereo Separation With cursor Up/Down the Stereo separation can be adjusted (w/o OSD, Menu display)		
20	see TT10		
21	Picture Rotation automatic function : (-4) -> (+4) -> 0		
22	Operating Timer and Error Monitor display		
23	Direct access to Sub Brightness Adjustment With cursor Up/Down the Sub BRT can be adjusted (w/o OSD, Menu display)		
24	Direct access to Sub Color. With Cursor Up/Down the Sub Color can be adjusted.		
25	Status menu display (SubController, CXA1840 Status, Main Controller.		
26	Text Character selection (Char set 06 ->West Europe)		
27	Text Character selection (Char set 38 ->East Europe)		
28	Text Character selection (Char set 40 ->West Europe) US English		
29	Text Character selection (Char set 55 ->West Europe) Turkish		
30	see TT10		
31	Text Character selection Char set Russian		
32	Text Character selection Char set Greek		
33	Programme catching test (Programme catching can be released by "Menu command")		
34	Multi PIP adjustment. Direct access to 3.58 horizontal write position. With Cursor Up/Down the 3.58 H write Pos can be adjusted (w/o OSD, Menu display).		
35	Multi PIP adjustment. Direct access to 4.43 horizontal write position. With Cursor Up/Down the 4.43 H write Pos can be adjusted (w/o OSD, Menu display).		
36	Mtx Register 112 = intern display clock		
37	Mtx Register 112 = extern display clock		

38	Automatic selection of Screen Modes: (not for S (4:3) Models. 4:3 -> Zoom -> Zoom up -> Zoom Center -> Zoom down -> Zoom Center -> smart -> (if Pal+ signal) PALPLUS -> wide.		
39	Reset Programme Table (NVM Bank 0ACH) The sorting of programmes in "Programme Sorting Menu" is reset.		
40	see TT10		
41	no function		
42	no function		
43	no function		
44	no function		
45	Set NVM to Protect mode (Bank 0AEH Adr. 0FFH write with 0)		
46	IR Channel Pressetting Mode. The channel pressetting can be done by a Special IR transmitter Sequence: TT46 -> PR Number select dispaly appears Select Prog. No from where the channel shall be stored> Now TV is waiting for IR sequence <> If no IR transmission starts TT46 is released after 20 secs Note: When TT46 is active, any transmission will be interpreted as PROG data!</td		
47	Direct access to Headphone Source Selection (Production use)		
48	Direct access to AGC Adjustment (PWM) output.		
49	The EEPROM Testbyte is erased. After Power OFF -> ON the complete EEPROM data (exept channel tables) is overwritten. EEPROM Protection byte is set to 0 protection mode		
50	see TT10		
51	Strobo mode is activated.		
52	no function.		
53	Photo mode test (Photo mode can be released by "Menu command").		
54	Direct access to Velocity Modulation VM (Production use)		
55	MTX Slicer Control "Low Pass" (only Sys L)		
56	MTX Slicer Control "No Compensation"		
57	Megatext Service Menu ON		
58	MTX Small Framing Code Window		
59	MTX Wide Framing Code Window		
60	see TT10		

61	Set Dolby default values.		
62	ACI disable.		
63	ACI enable.		
64	Reset all IIC Slave commands (Production use)		
65	Reset stored error codes in NVM.		
66	Reset for PALplus local controller and Sub Controller.		
67	Direct access to Headphone Volume. With cursor Up/Down the Headphone Volume can be controlled (w/o OSD, menu display) (Production use)		
68	ignore errors.		
69	reset ignore errors (show errors)		
70	see TT10		
71	Picture Rotation Function On/Off toggle.		
72	Dolby register setting menu.		
73	Megatext RGB textlevel one step decreased (max 3 steps down starting from E0h) (Production use)		
74	Megatext RGB textlevel one step decreased (max 1 steps down starting from E0h) (Production use)		
75	reserved		
76	CXD 2030 Default data setting.		
77	CXD 2031 Default data setting		
78	CXD 2032 Default data setting		
79	CXD 2033 Default data setting		
80	see TT10		
81	CXD 2033D Default data setting		
82	CXD 2035 Default data setting		
83	CXA 1526 Default data setting		
84	CXA 1839 Default data setting		
85	CXA 1840 Default data setting		
86	TDA 9145 Default data setting		
87	TDA 9160 Default data setting		
88	no function		
89	no function		
90	see TT10		

4-4. ERROR MONITOR AND DETECTION

In the menu 'Error Monitor', information about the error status of the set is displayed.

- · Actual operating time
- Last five errors which are stored in the NVM.
- Actual error.

Error Monitor		
Operating Time		
000355 h 35min		
Saved Errors		
1. 40h=D1 Board		
2 60h=Q Board		
3. 70h=T Board		
4. 00h=no error occured		
5. 00h=no error occured		
Actual Error		
-> 00h=no error occured		
to reset the NVM press 'TT' 65		

Additionally the Error Reader can be connected to the service connector to read out the actual errors.

The device check itself is active while the TV set is running out of stand-by mode. The devices are checked by sending an I²C start sequence and if there is no acknowledgement back from the devices it is regarded as an error. Each device is checked three times and if at every attempt there is no reply from the relevant device an error is given. To read the error codes press "TT" followed by 22 on the commander to view the Error Monitor menu.

To reset the error codes in the NVM press 'TT' followed by 65 on the remote commander.

TABLE OF ERROR CODES

Error Code	Device	Description	Board
000 h	no device	no error has occured	-
001 h	IIC 1 and IIC 2	IIC 1 and IIC 2 blockaded	-
002 h	IIC 1	IIC1 is blockaded	-
00 3h	IIC 2	IIC 2 is blockaded	-
010 h	A Board	A Board is defective	-
020 h	A1 Board	A1 Board is defective	-
030 h	BX-Board (B,B1,B2)	B, B1, or B2 Board is defective	
040 h	D1 Board	D1 Board defect	•
050 h	J Board	J Board defect	-

	7	T	
Error Code	Device	Description	Board
060h	Q Board	Q Board defect	-
070h	T Board	T Board defect	-
011h	CXP85332	No response from the Subcontroller	А
012h	ST24C16	No response from the NVM	Α
013h	SDA5273	No response from the Megatext IC	Α
014h	TDA6812	No response from the Sound Processor	А
015h	SAA7283	No response from the Nicam Decoder	A
016h	UV916H	No response from the Main Tuner	А
017h	CXA1839Q	No response from the Video Controller	А
018h	CXA1840	No response from the CRT Driver	А
019h	RGB8443	No response from RGB/YUV	А
021h	TDA6622	Audio processor of the Center and Surround channel in the case of Dolby Prologic does not respond.	A1
022h	TDA7317	No response from the Equalizer.	A1
031h	CXD2030R	No response from the Digital Video Processor.	B/B1
032h	CXD2031R	No response from the Twin Picture IC.	B1
033h	CXD2032R	No response from the Digital Sampling Rate Converter.	B/B1
034h	CXD2033R	No response from the Picture in Picture IC.	В
035h	CXD2035R	No response from the Aspect Converter.	B/B1
036h	TDA9160	No response from the Chroma Decoder.	B/B1
037h	TDA9145	No response from the Chroma Decoder (on French models only.)	B2
041h	CXA1526	No response from the Convergence IC.	ID1
051h	CXA1855	No response from the AV-Switch	J
061h	83C65202	No response from the Local Controller.	Q
071h	UV1316/TSA5526	No response from the Subtuner.	Т
072h	CXA1875	No response from the Port Expander.	Т

4-5. LED Error Blinking

In addition to the Error Monitor facility there is an additional error indicator which indicates the most important errors also in the case of IIC error and Megatext error in opposition to the error monitor.

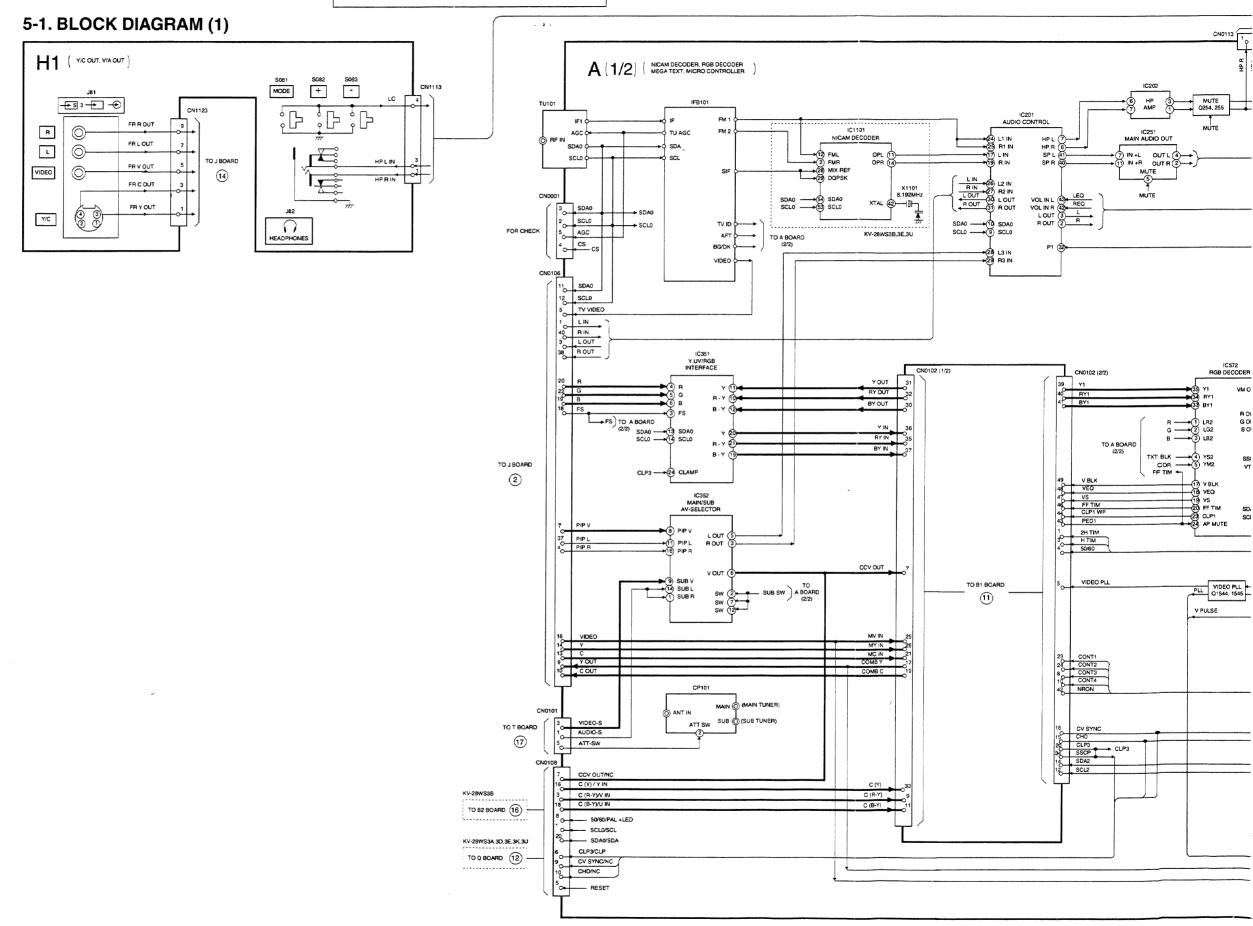
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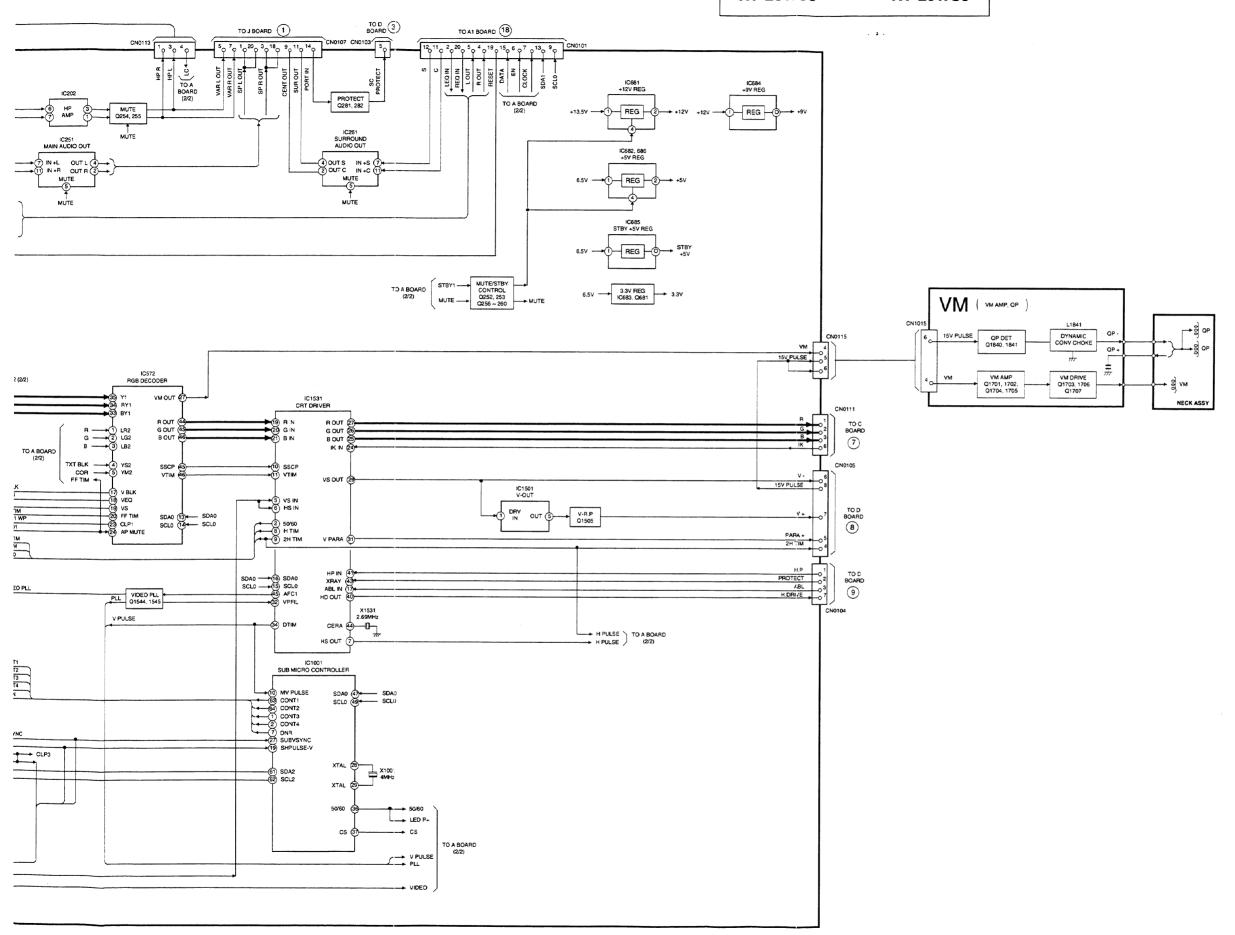
The error is recorded by counting the number of times that LED B blinks. This facility also works while in stand-by mode.

LED Error Code.

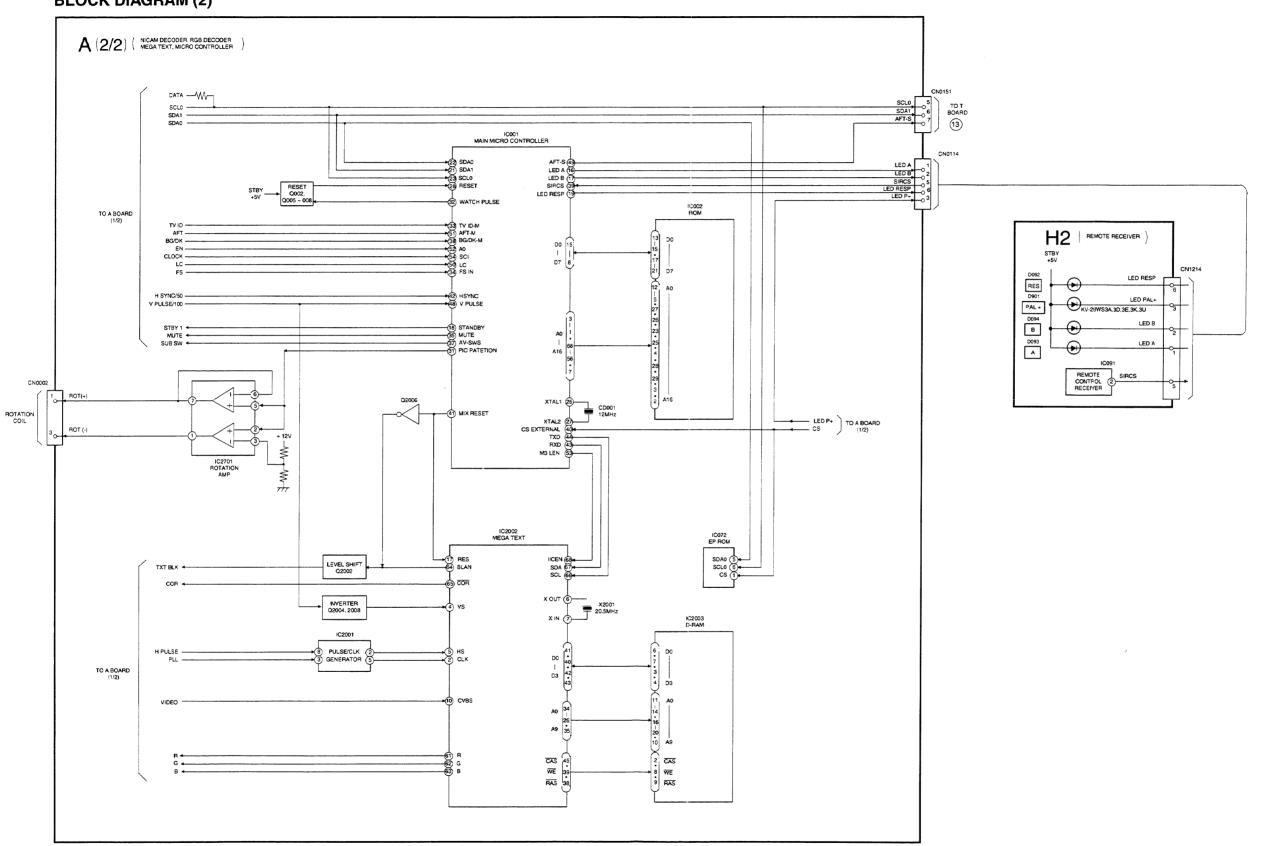
Error	number of LED B blinking	Description	Board
0	1	general IIC error	-
1	2	ST24C16 NVM error	Α
2	3	CXP85332 subcontroller error	Α
3	4	CXD2030R error of Digital Video Processor	B/B1
4	5	CXD2032R error of Digital Sampling Rate Converter	B/B1
5	6	CXD2035R error of Aspect Converter	B/B1
6	7	TDA1839 error of Video Controller	Α
7	8	TDA1840 error of CRT Driver	Α
8	9	CXA1855 error of AV switch	J
9	11	SDA5273 error of Megatext	Α
10	12	TDA6812 error of Sound Processor	Α
11	16	V-Protection (In this case the TV set is switched of immediately)	-

KV-28WS3 KV-28WS3

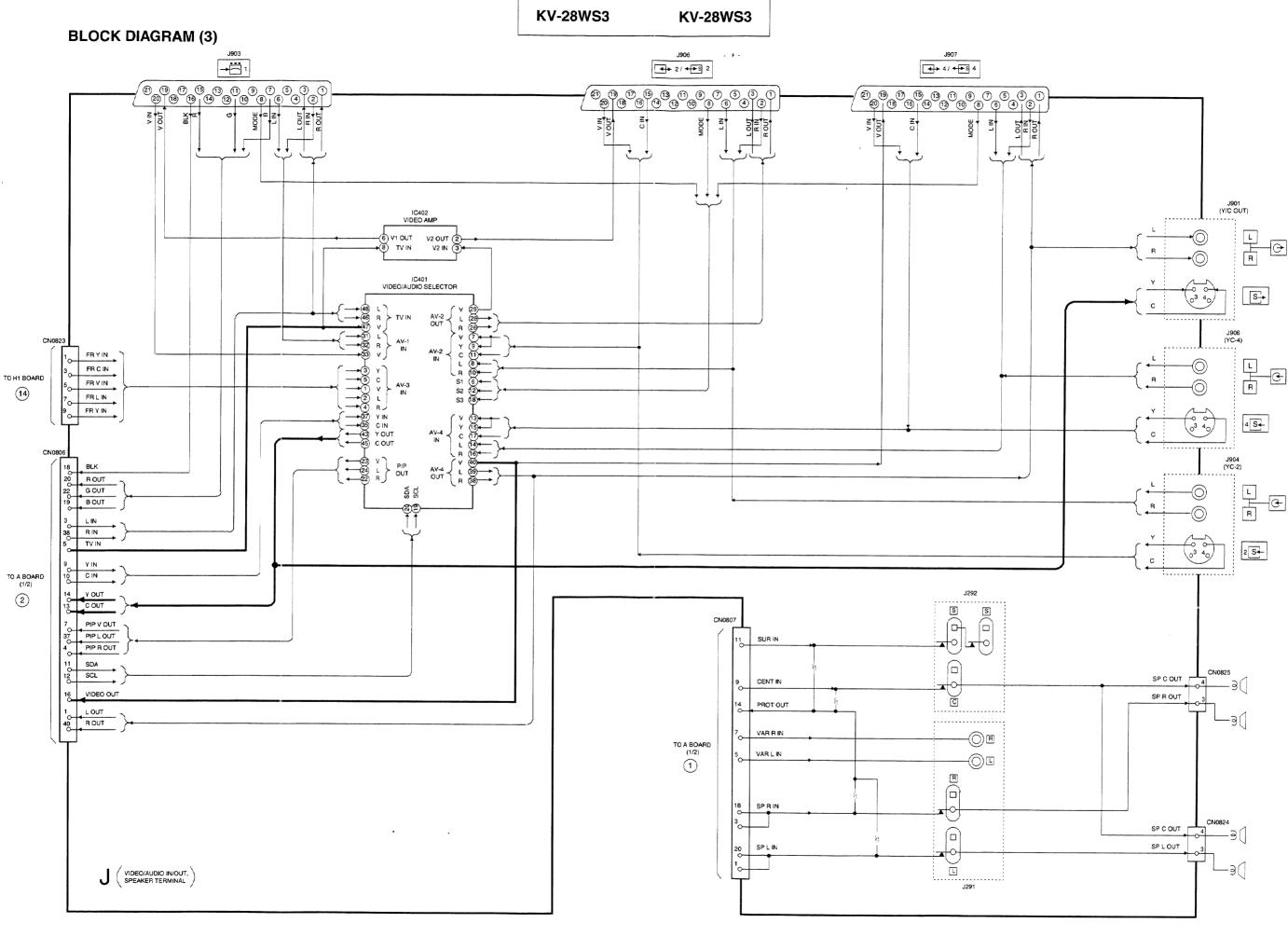




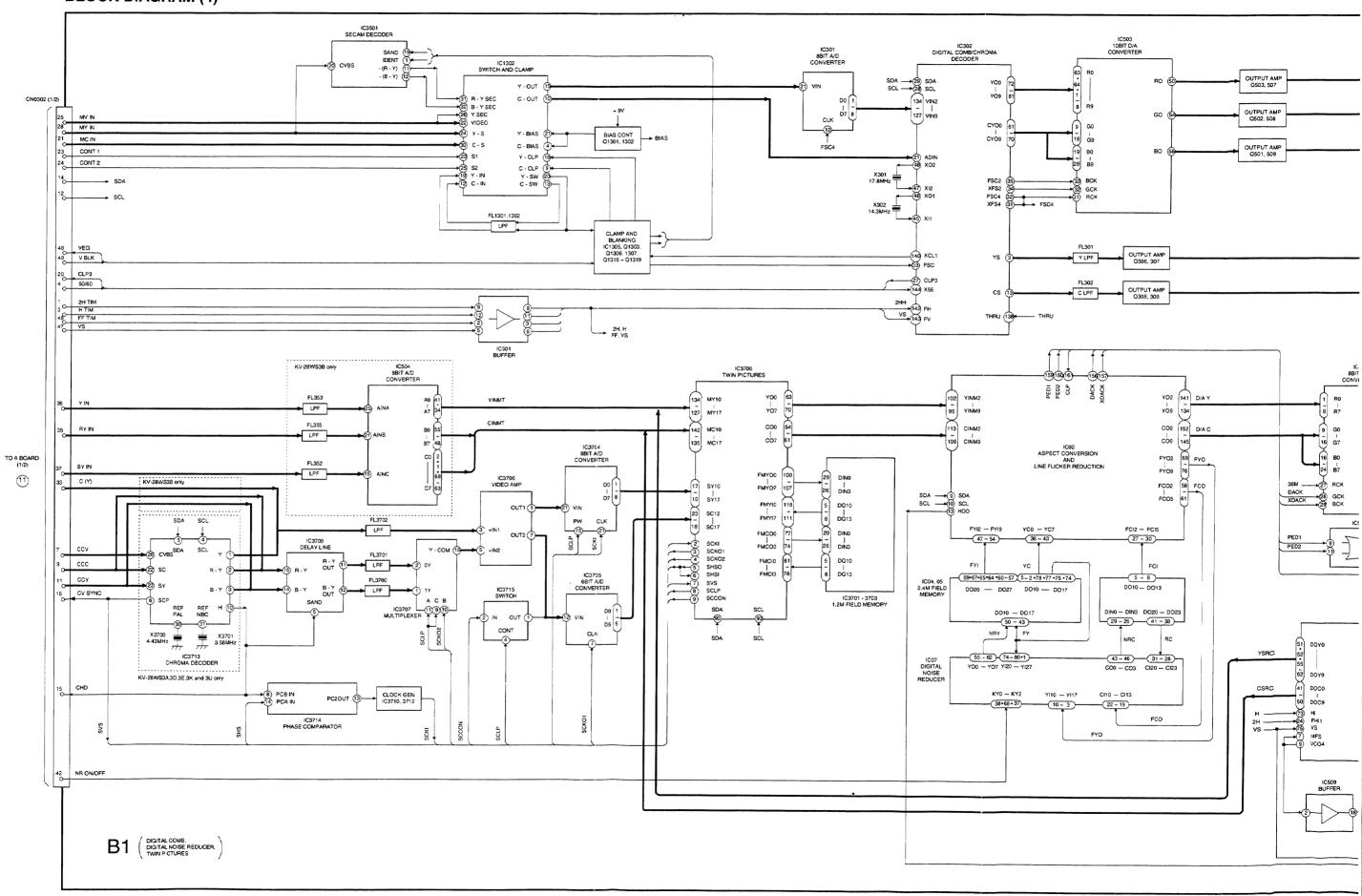
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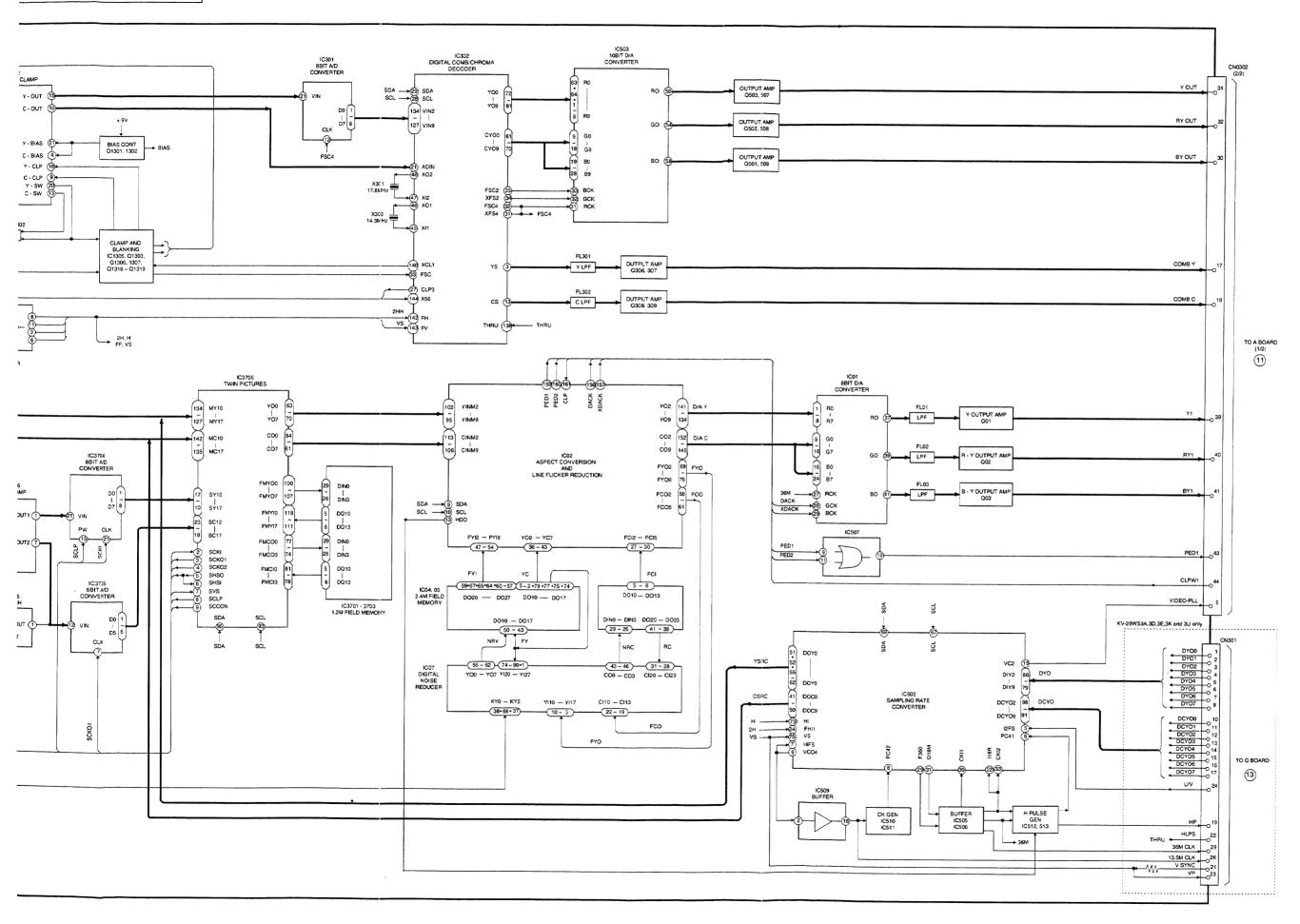








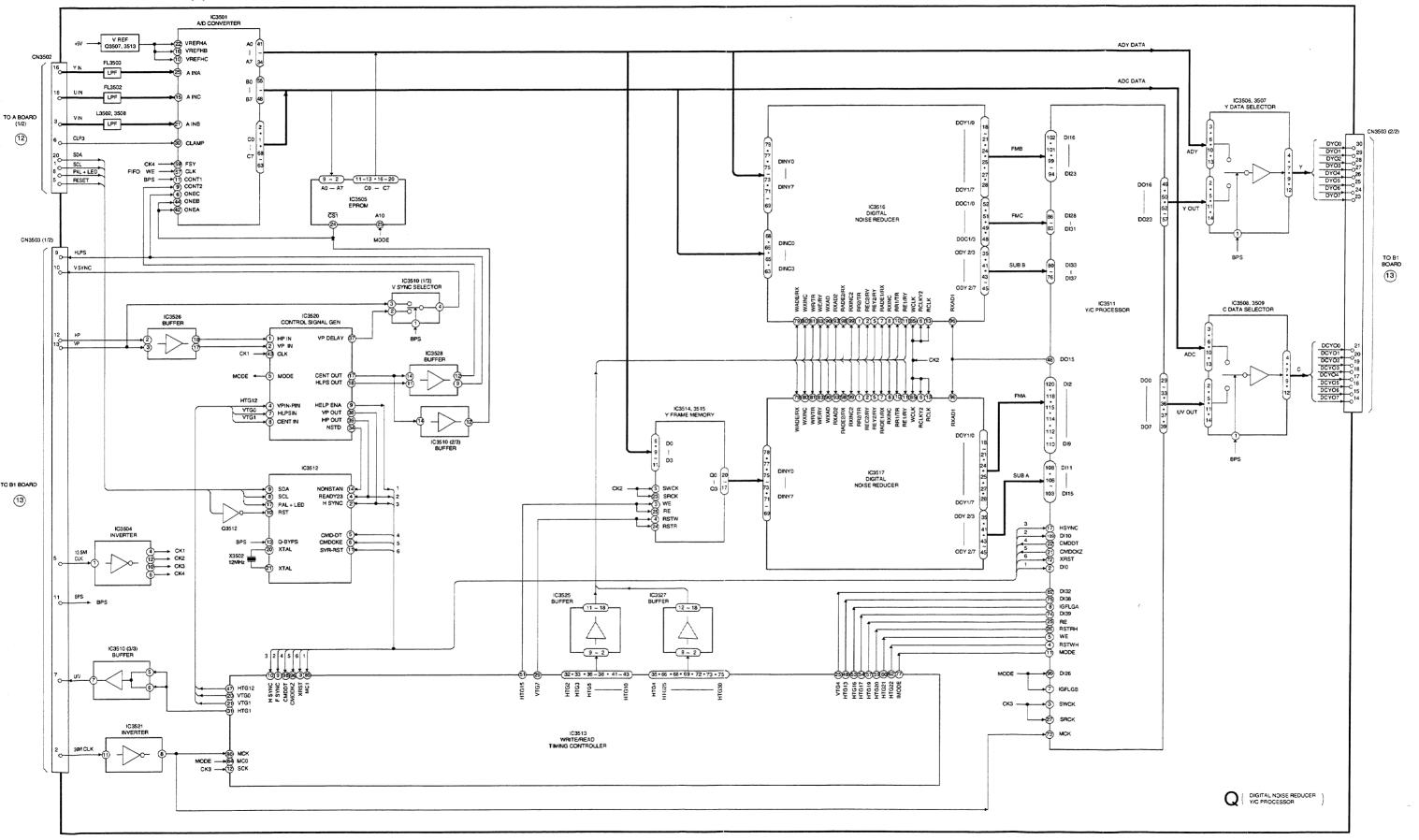
1S3

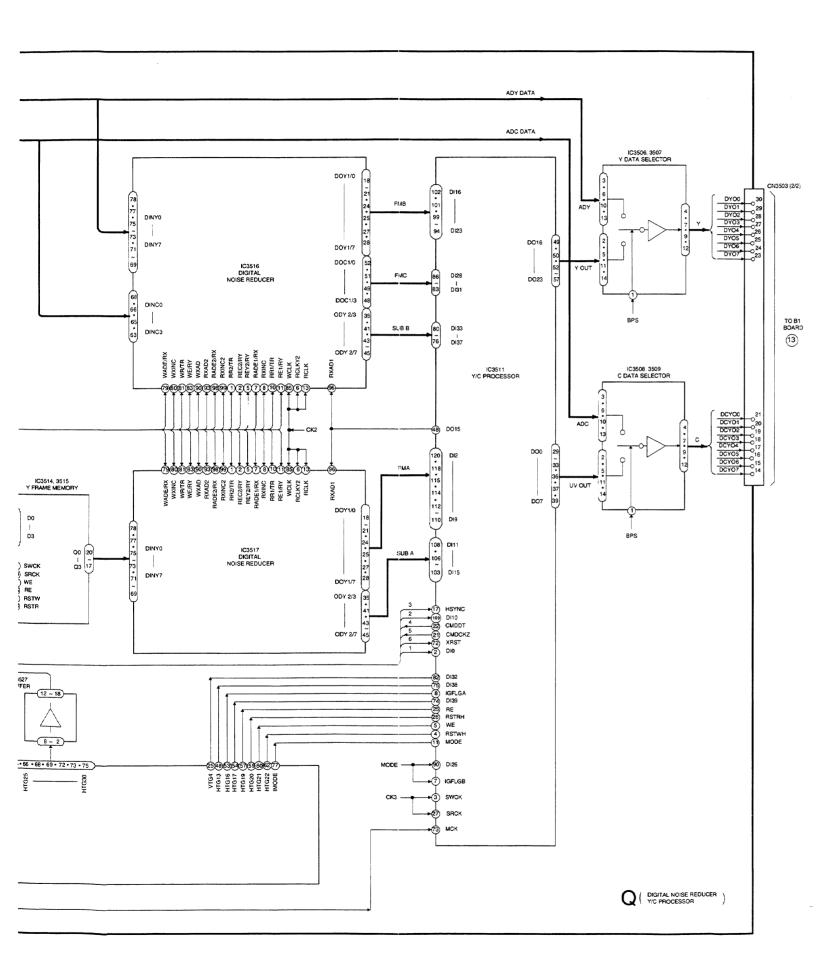


-- 42 --

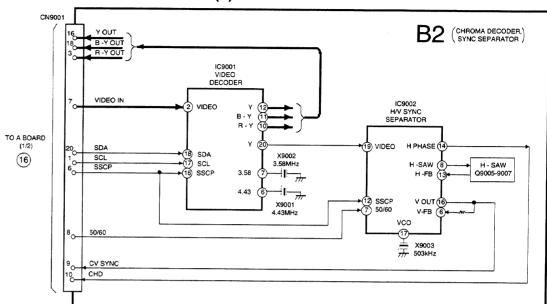
--- 43 ---

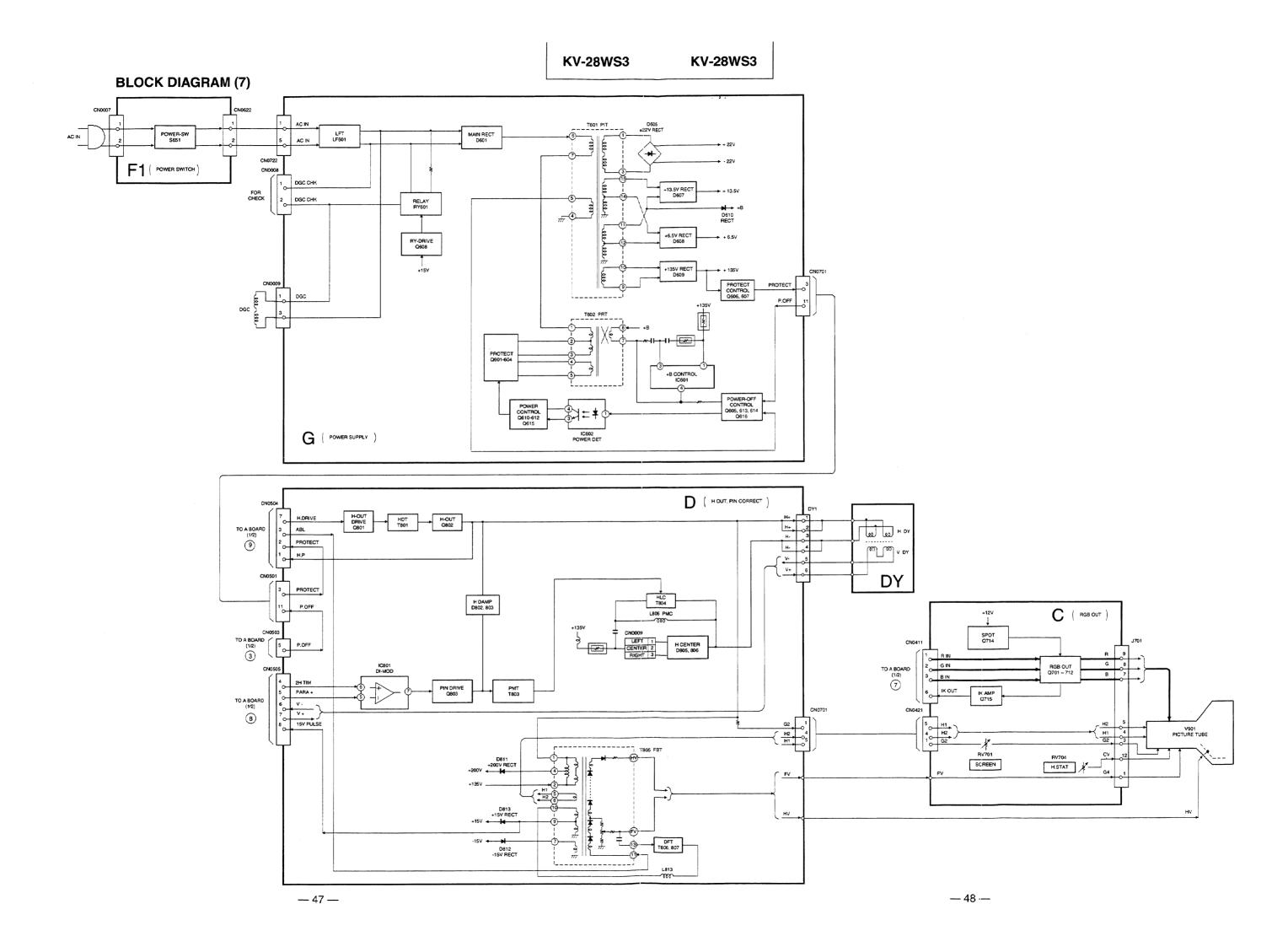
BLOCK DIAGRAM (5) KV-28WS3A, 3D, 3E, 3K, 3U



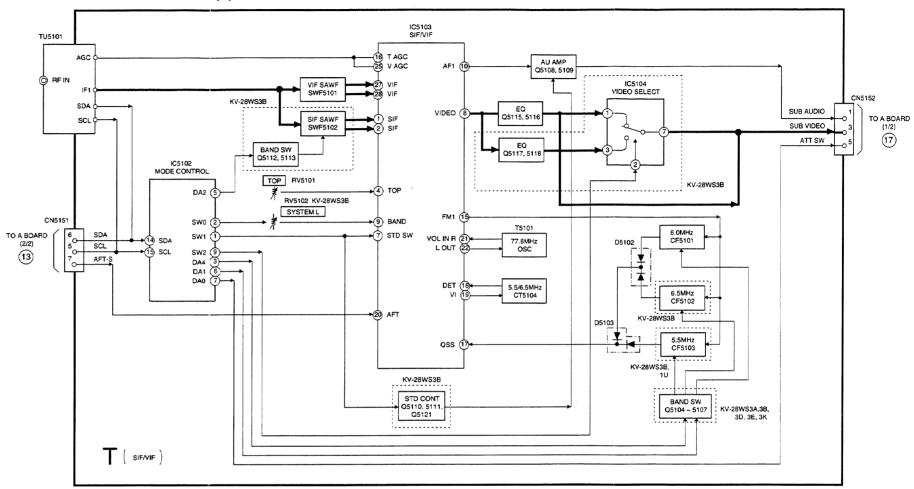


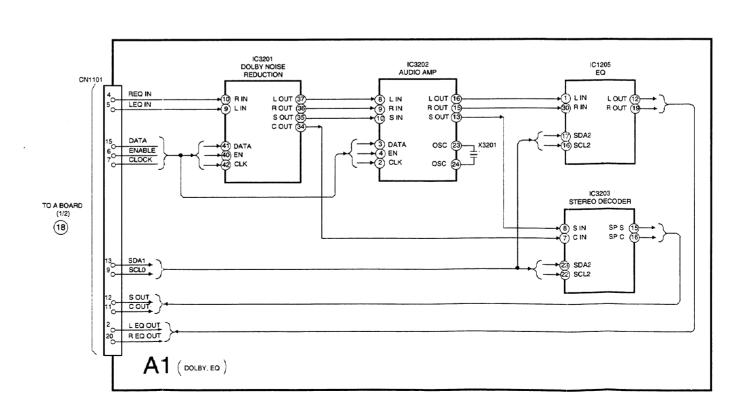
BLOCK DIAGRAM (6) KV-28WS3B

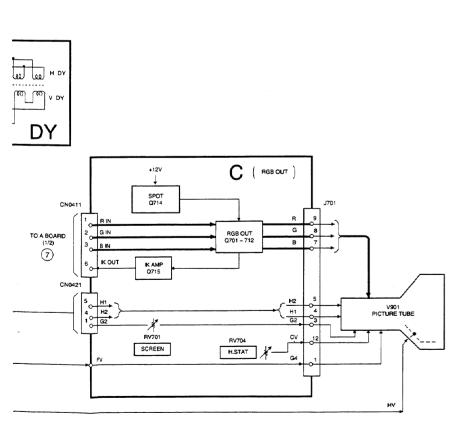




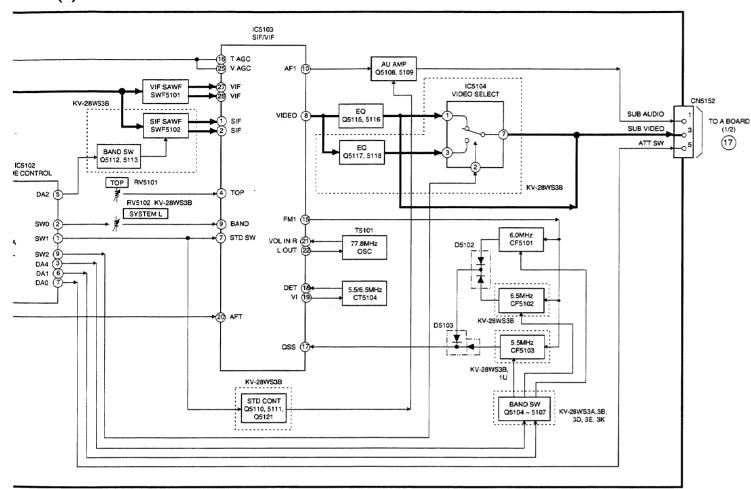
BLOCK DIAGRAM (8)

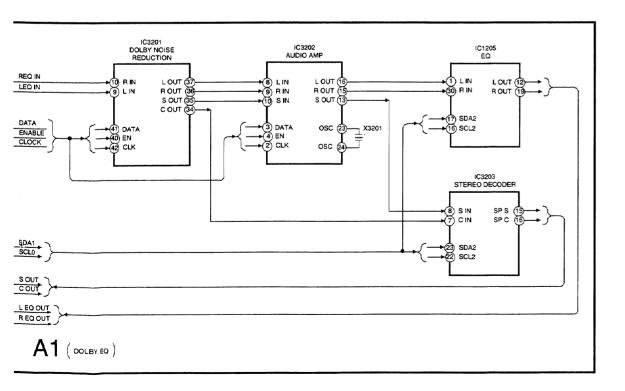




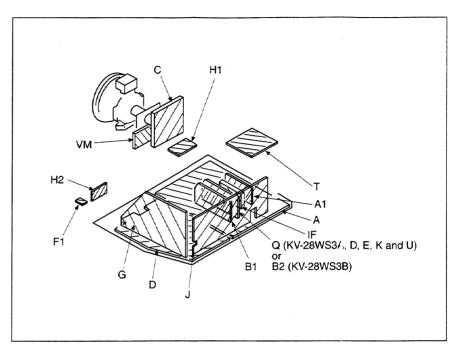


3RAM (8)





5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.

All resistors are in ohms.

 $k\Omega = 1000\Omega$, $M\Omega = 1000K\Omega$

Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power ¼ W

: nonflammable resistor.

: internal component.

: panel designation, or adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

: earth - ground.

: earth - chassis.

: no mounted.

Note: The components identified by shading and marked are critical for safety. Replace only with the part number specified.

Note: Les composants identifies par une trame et une marque : sont critiques pour la securite. Ne les remplacer que par une piece portant le

Reference information

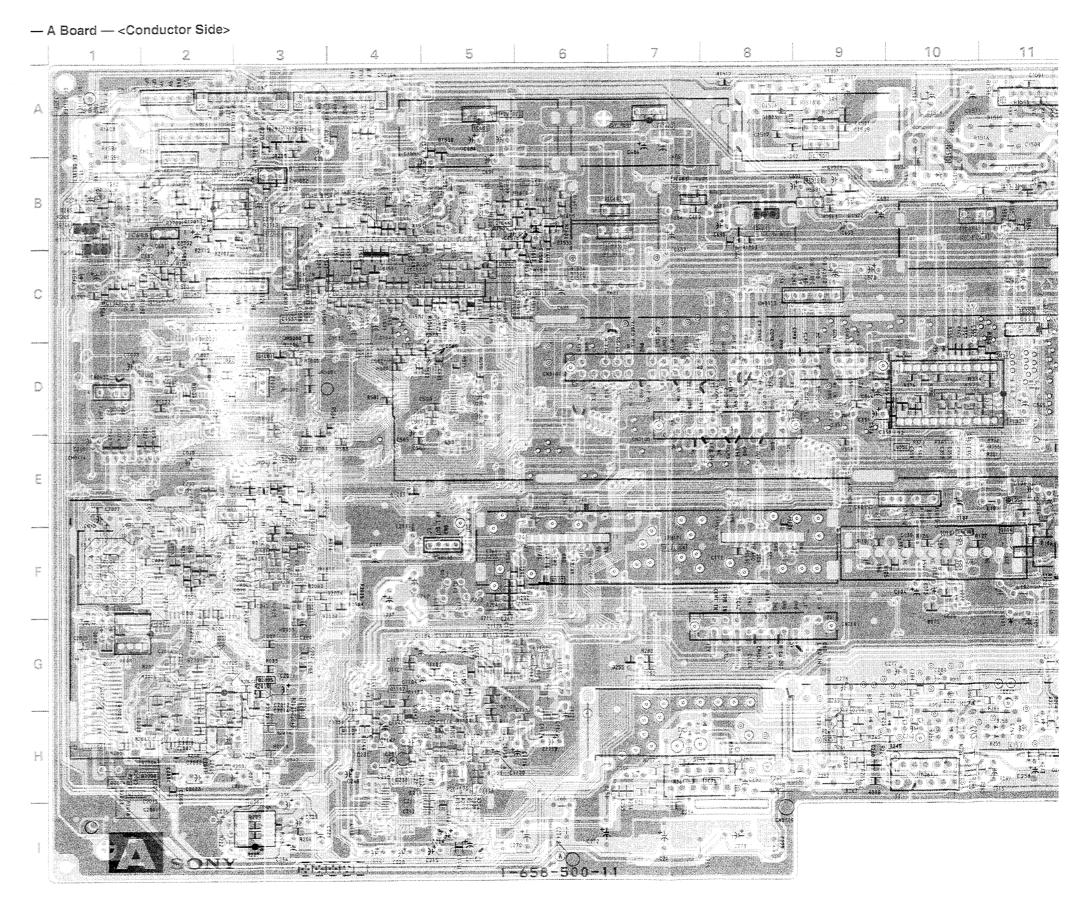
RESISTOR METAL FILM : RN : RC SOLID : FPRD NONFLAMMABLE CARBON : FUSE NONFLAMMABLE FUSIBLE : RS NONFLAMMABLE METAL OXIDE : RB NONFLAMMABLE CEMENT NONFLAMMABLE WIREWOUND : RW ADJUSTABLE RESISTOR : X COIL : LF-8L MICRO INDUCTOR CAPACITOR TANTALUM : TA : PS STYROL : PP POLYPROPYLENE : PT MYLAR : MPS METALIZED POLYESTER : MPP METALIZED POLYPROPYLENE **BIPOLAR** : ALB : ALT HIGH TEMPERATURE : ALR HIGH RIPPLE

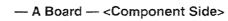
- Readings are taken with a colour-bar signal in put.
- Readings are taken with $10M\Omega$ digital multimeter.
- Voltages are dc with respect to ground unless otherwise
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

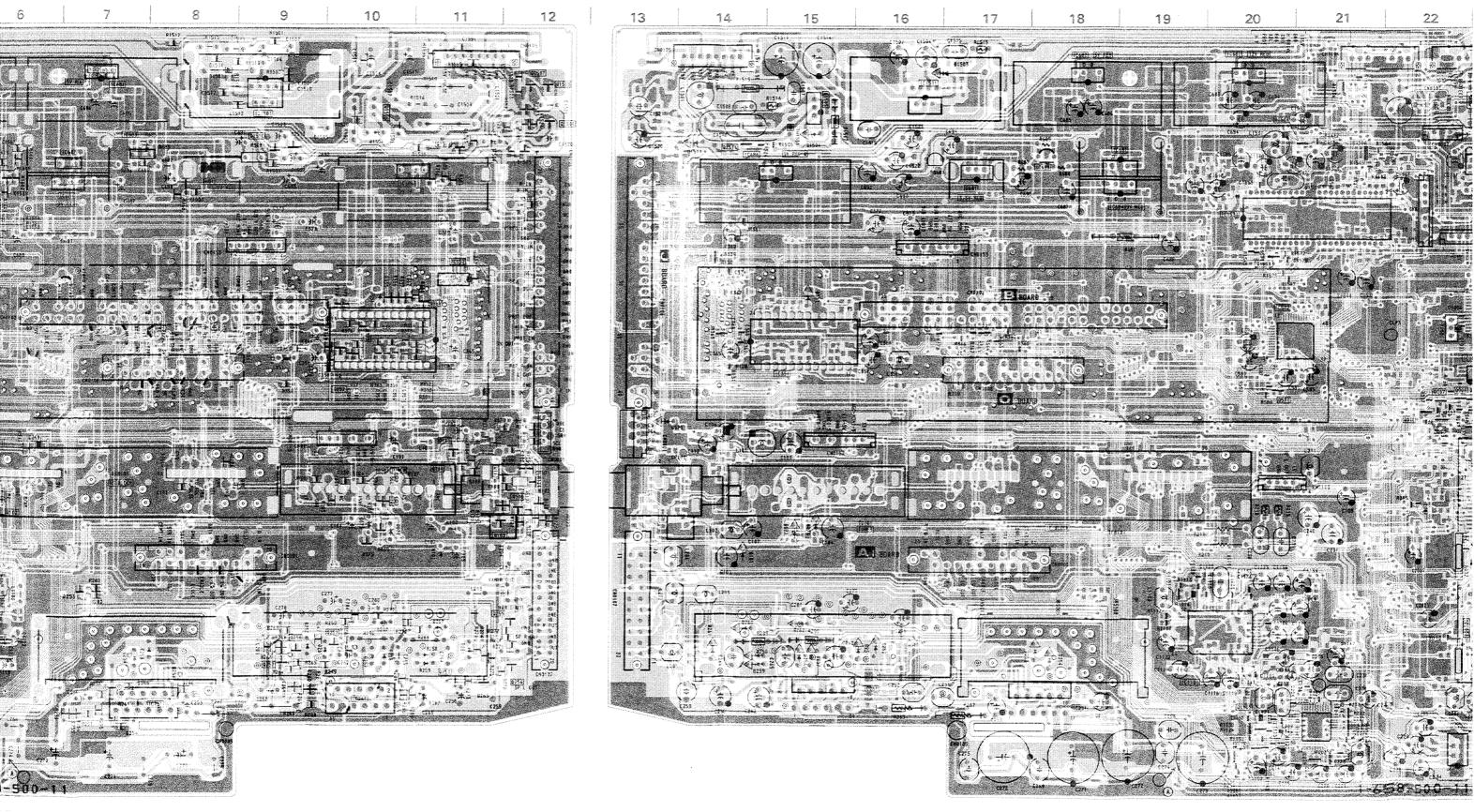
A BOARD

IC.		04500	
IC001 IC002 IC072 IC201 IC202 IC251 IC261 IC351 IC352 IC572 IC681 IC682 IC683 IC684 IC685	F-23 F-1 F-2 H-21 H-3 H-8 H-10 D-11 C-11 C-11 C-20 A-5 A-7 B-7 B-7	Q1532 Q1533 Q1544 Q1547 Q1548 Q1549 Q2001 Q2002 Q2004 Q2005 Q2006 Q2008 Q2701	C-5 C-20 B-5 B-6 C-2 C-1 C-2 F-3 G-1 H-1 G-3 H-2 H-2 B-2
△ IC686 IC1001 IC1101 IC1501 IC1531 IC2001 IC2002 IC2003 IC2701	B-10 D-23 H-19 A-9 C-4 G-3 G-24 H-1 B-2	D001 D003 D068 D069 D071 D073 D075 D077	E-3 E-23 G-1 F-10 F-10 F-10 G-1 G-1
TRANSIS	STOR	D079 D101	F-1 F-11
Q002 Q005 Q006 Q007 Q008 Q102 Q103 Q106 Q107 Q110 Q203 Q252 Q253 Q254 Q255 Q256 Q257 Q258 Q251 Q352 Q351 Q362 Q351 Q3681 Q1001 Q1105 Q1106 Q1107 Q1108 Q1505 Q1506 Q1507 Q1508 Q1511 Q1512 Q1531	E-3 E-23 E-22 E-22 E-22 E-6 F-12 B-1 C-1 F-11 E-6 G-10 H-112 G-1 H-9 G-3 A-3 D-11 E-23 B-8 D-3 H-20 G-4 H-10 B-12 B-14 B-12 B-14 B-12 B-14 B-14 B-15 B-16 B-17 B-18 B-18 B-18 B-18 B-18 B-18 B-18 B-18	○ D201 D251 D252 D253 D254 D255 D256 D257 D258 D259 D260 D261 D262 D263 D351 D381 D1001 D1102 D1503 D1503 D1501 D1501 D1551 D1510 D1511 D1533 D1534 D1536 D1539 D1542 D1543 D2001 D2004 D2701	H-5 H-9 G-9 H-7 H-10 H-11 G-11 H-11 G-11 H-11 G-11 H-11 G-11 H-11 G-12 B-23 B-4 G-6 A-8 B-10 B-12 B-9 B-12 B-11 A-2 B-11 A-2 B-12 B-14 B-15 C-14 B-16 B-17 B-17 B-18 B-18 B-18 B-18 B-18 B-18 B-18 B-18

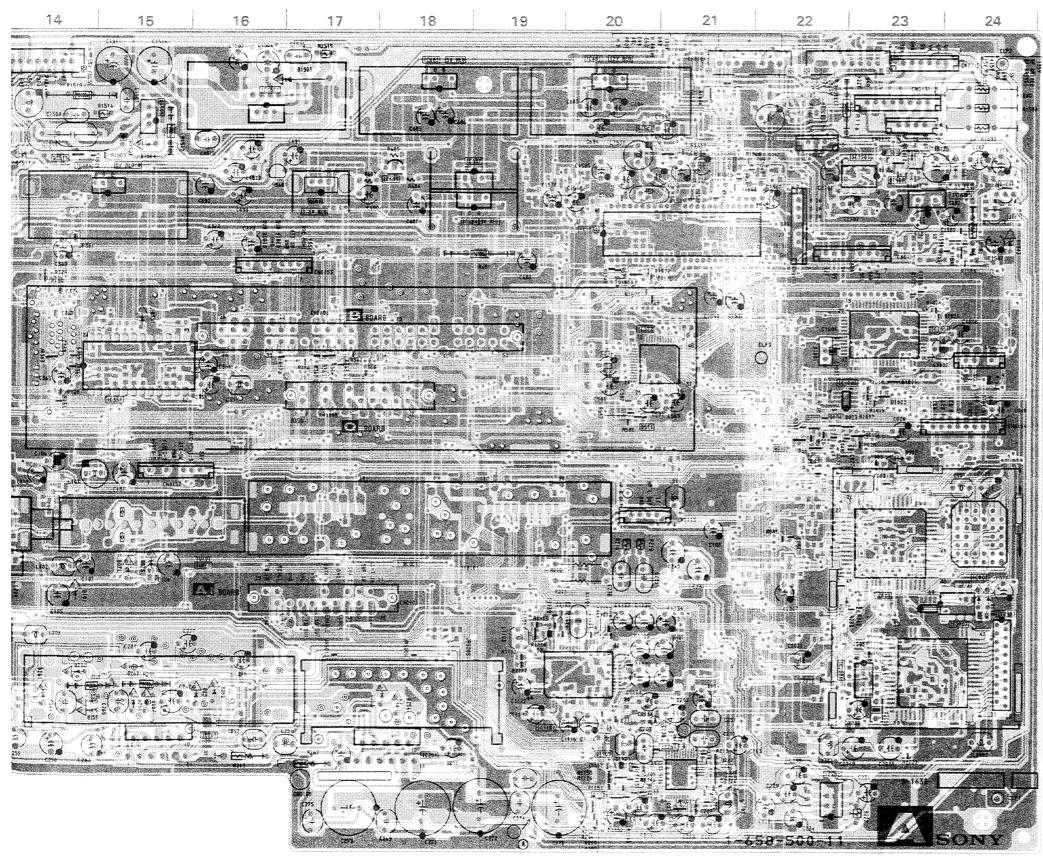
mark: KV-28WS3A,3B,3D,3E and 3K only
 mark: KV-28WS3B,3E and 3U only
 ∆ mark: KV-28WS3A,3D,3E,3K and 3U only





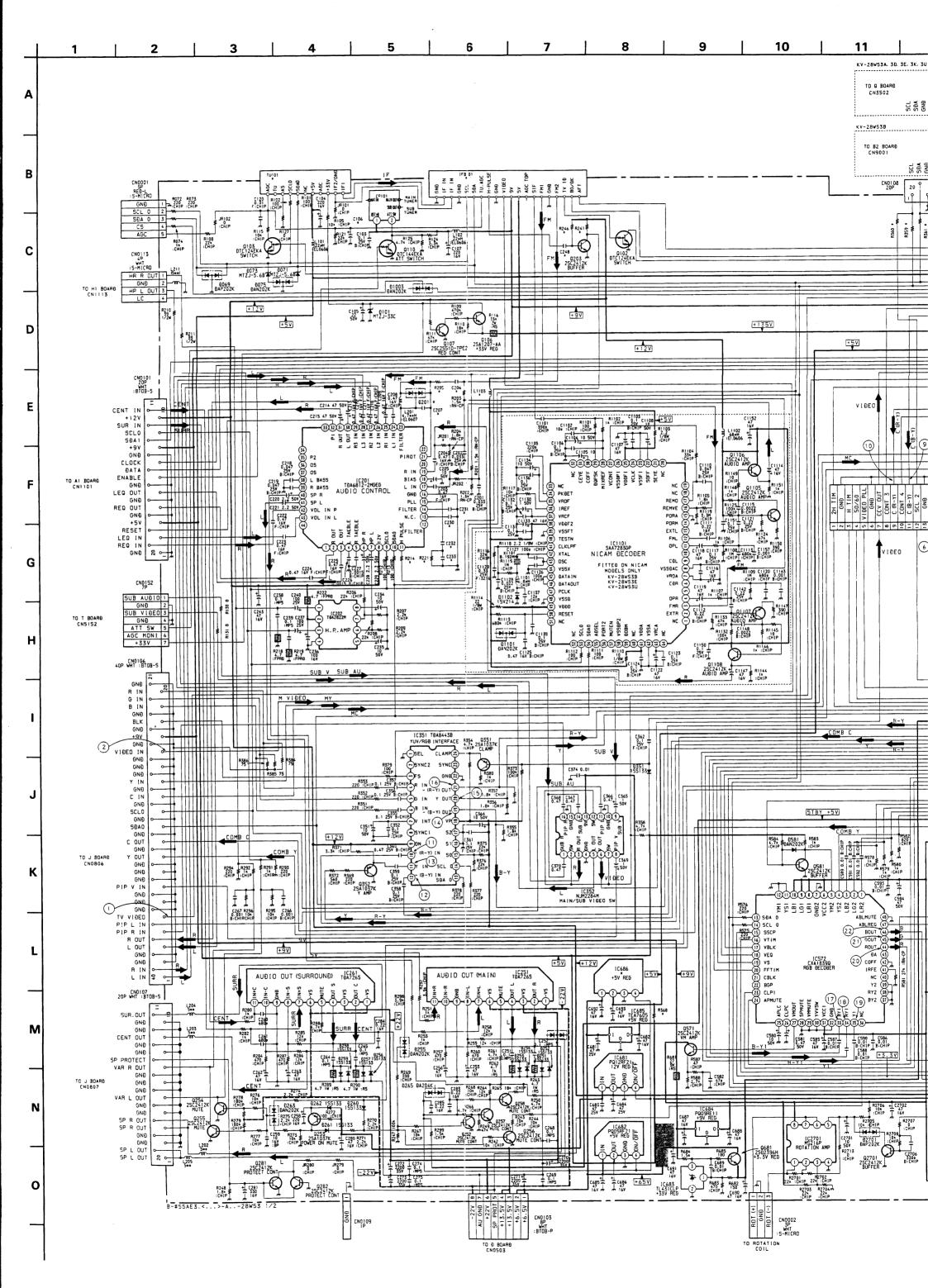


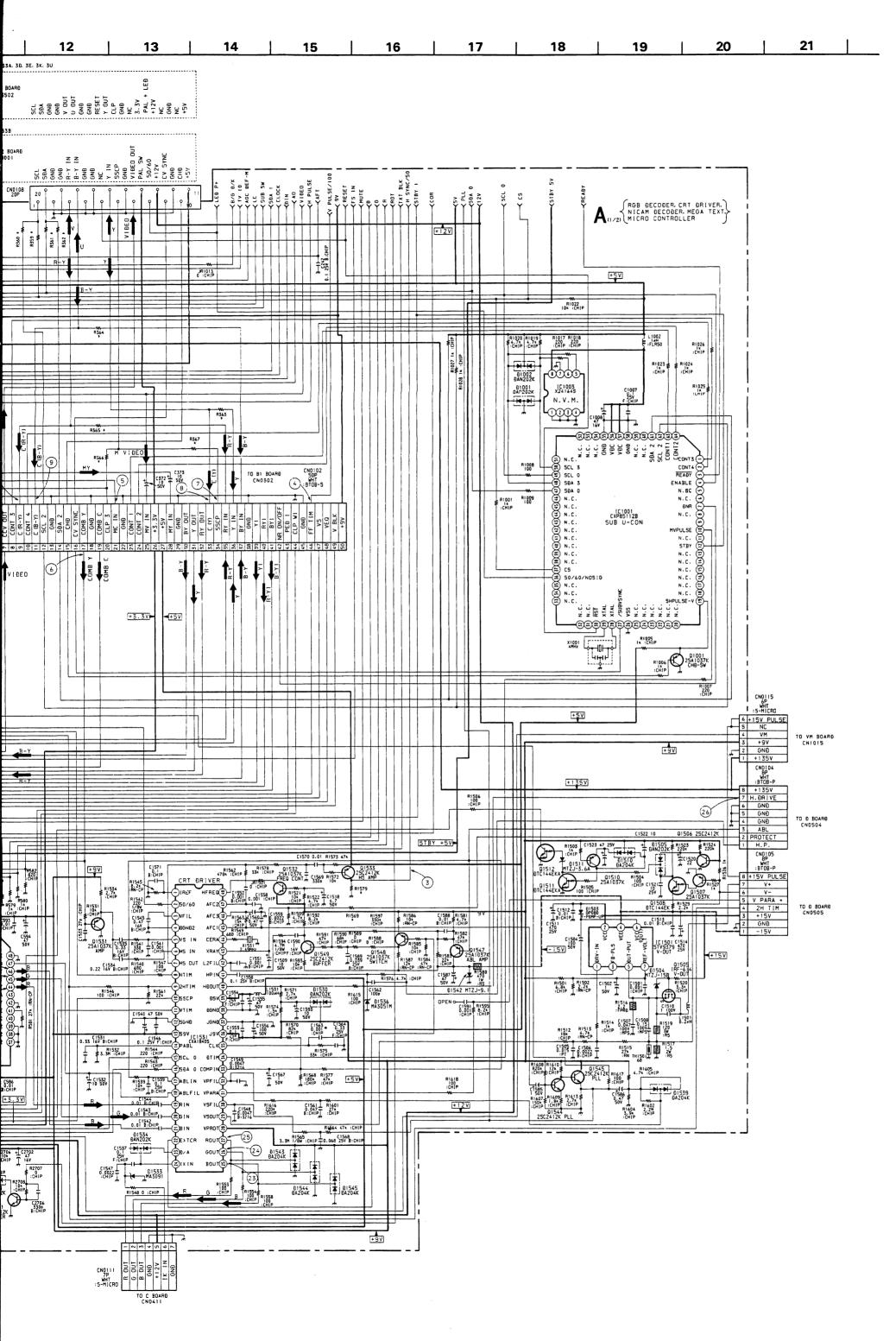
- <Component Side>



A BOARD * MARK

Model Rei, No.	28W\$3A	28WS3B	28WS3D	28WS3E	28WS3K	28WS3U
C106	4.7MF 50V	100MF 16V	4.7MF 50V	4.7MF 50V	4.7MF 50V	4.7MF 50V
C506	0.0022MF	0.0022MF	0.0022MF	0.0022MF	0.0022MF	*
C207	0.0018MF	0.0018MF	0.0018MF	0.0018MF	0.0018MF	
C530	1MF	1MF	1MF	1MF	1MF	<u>*************************************</u>
C231	1MF	1MF	1MF	1MF	1MF	•
C232	0. 0 033MF	0 0033MF	0.0033MF	0.0033MF	0.0033MF	
C233	680P	680P	680P	680P	68CP	-
C248	150P	150P	150P	150P	15GP	~
D201	DA204K	DA204K	DA204K	DA204K	DA204K	
IC686	PQ05BF21	-	PQ05RF21	PQ05RF21	PQ05RF21	PQ05RF21
:F8101	IFH-389WE	IFH-389FX	IFH-389WE	IFH-389WE	IFH-389EE	IFH-395GB
L1103		68UH	44	68UH		58UH
JR201	0 : CHIP	-	0 : CHIP	e4	0 : CHIP	**
JR202	0 : CHIP	-	0 : CHIP		0 : CHIP	
Q203	2SC2412K	2SC2412K	2SC2412K	2SC2412K	2SC2412K	*
R205	5.6K	5.6K	5.6K	5.6K	5.6K	
R214	100	100	100	100	100	**
F221	56K	56K	56K	56K	56K	~
R241	4.7K	1.7K	4,7K	4.7K	4.7K	
R246	196K	100K	100K	100K	100K	~
R359				0: CHIP	0 : CHIP	0 : CHIP
F360	~	0 : CHIF			~	
R361	0 : CHIP		0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
R362		0 : CHIP	/**	ř.,	A*	**
R363	0 : CHIP	-	0 CHIP	0 : CHIP	0 : CHIP	0 CHIP
R364	0 : CHIP	-	0 : CHIP	0: CHIP	0 : CHIP	0 : CHIP
R365	0 : CHIP	*	0 : CHIP	0: CHIP	0 : CHIP	0: CHIP
R366	0 : CHIP	-	0 : CHIP	0: CHIP	0 : CHIP	0 : CHIP
R367		0 : CHIP			**************************************	v-
R358		0 : CHIP	***			~
R1003	C: CHIP		0 : CHIP	0 CHIP	e: CHIP	0 : CHIP
R1569	10K	10K	10K	10K		10K
Fi1572	10K	10K	10K	10K	100	10K
R1579	2.2K	2. 2 K	2.2K	2.2K		2.2K
TU101	UV:316	UV:316	UV1316	UV1316	UV1316	U1344





WAVEF

1 P

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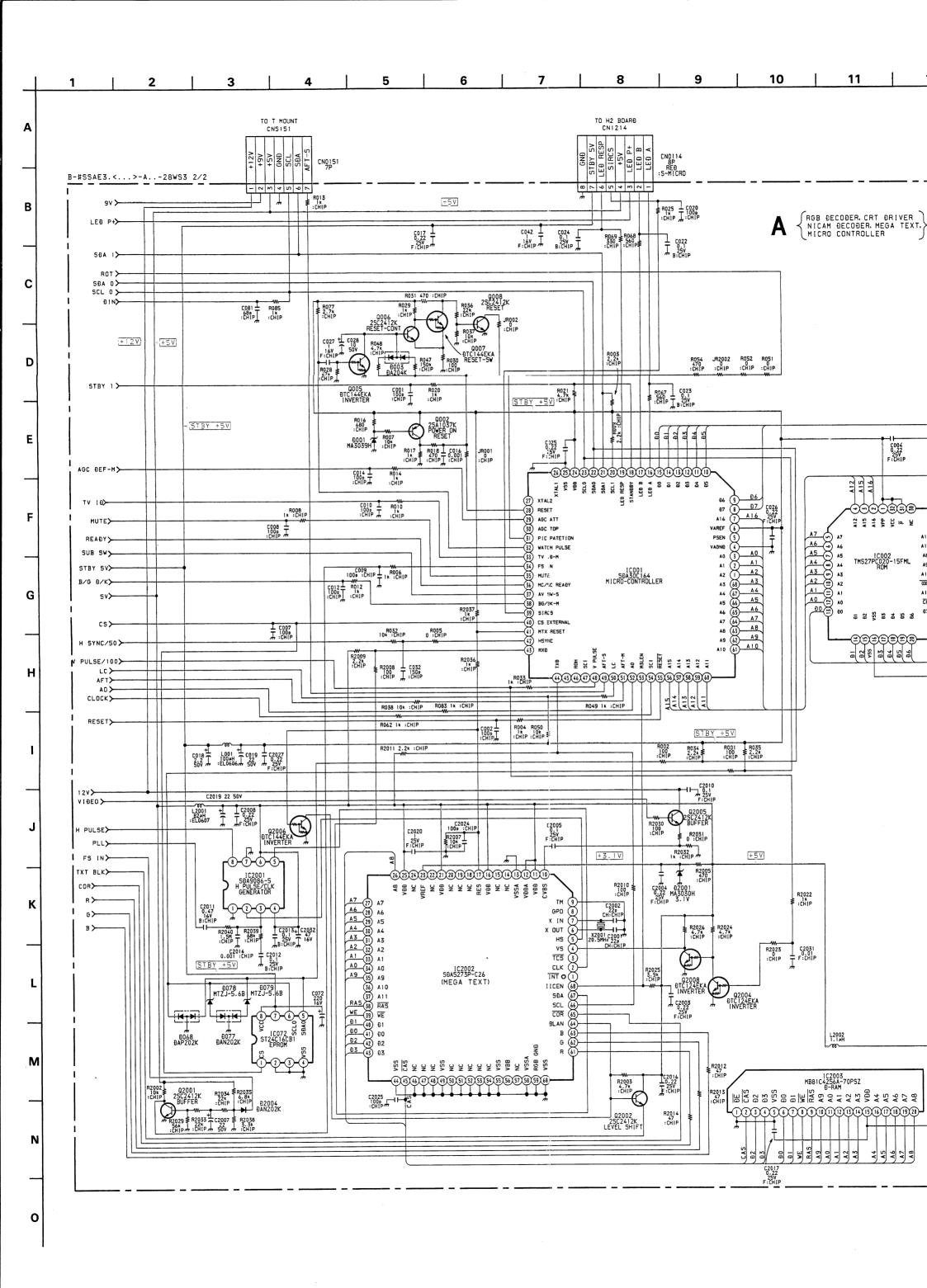
WAVEFORMS A BOARD

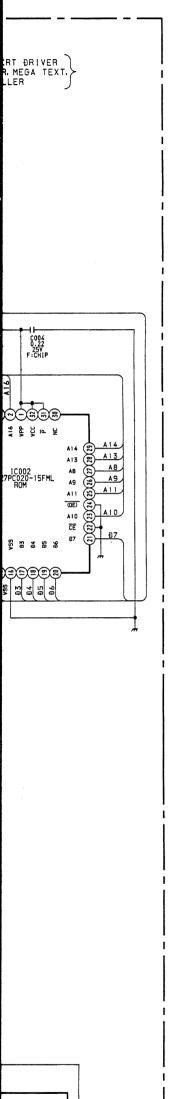
WAVEFORMS A BO	AND	
1 PAL	1 SECAM	2 PAL
1.0 Vp-p (H)	1.0 Vp-p (H)	2.0 Vp-p (H)
2 SECAM	3	(4)
2.0 Vp-p (H)	4.9 Vp-p (H)	3.0 Vp-p (V)
5 PAL	5 SECAM	6 PAL
0.8 Vp-p (H)	1.0 Vp-p (H)	1.7 Vp-p (H)
(6) SECAM	(7)	8
Jana Jana		Juny L
1.8 Vp-p (H)	4.5 Vp-p (H)	2.0 Vp-p (H)
2.0 Vp-p (H)	1.5 Vp-p (H)	0.7 Vp-p (H)
12	13	14)
- <u>Л</u> Д-ДДД-ДДД 1.0 Vp-p (H)	1.0 Vp-p (2H)	2.0 Vp-b (H)
(15)	(16)	
2.0 Vp-p (H)	1.5 Vp-p (H)	(17)
(18)	19	
JLJLJL	Marral	
1.0 Vp-p (2H)	0.7 Vp-p (2H)	1.0 Vp-p (2H)
21	22	23
1.0 Vp-p (2H)	3.0 Vp-p (2H)	1.0 Vp-p (2H)
3.2 Vp-p (2H)	(25) 3.5 Vp-p (2H)	26) 2.5 Vp-p (2H)
<u> </u>		F (- · 7

Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)
IC1001	1	0		44	GND		5	3.6
	2	0	1	45-47	2.1	1	6	3.0
	3	5.0		48	GND	1	7	3.1
	4	4.0	1	49-50	4.4	1	8	1.7
	5-6	•		51-52		1	9	1.8
	7	0	1	53-54	4.0	7	10	0.8
	8-9	•	1	55-60		1	11	0.5
	10	0.2	1	61	4.4	1	12	GND
	11	-	1	62	GND	1	13	9.0
	12	1.5	1	63	2.2	1	14	0
	13-18	-	1	64	•	1	15	3.8
	19	1.0	IC201	1	0	1	16	4.0
	20-25	-	1	2-7	6.1	1	17	4.4
	26	GND	1	8	12.0	1	18	8.7
	27	2.0	1	9-10	4.0	1	19-21	3.6
	28	2.5	1	11	0.1	1	22	0.8
	29	2.5	1	12	0	1	23	2.4
	30	4.0	1	13-15	3.0	1	24	5.0
	31-54	•	1	16	0	1	25	2.1
	55	GND	1	17-19	6.1	1	26	2.2
	56	5.0	1	20	0	1	27	2.1
	57	5.0	1	21	6.1	1	28	8.0
	58	GND	1	22	0	1	29-32	4.0
	59-60	-	1	23-31	6.1	1	33	5.1
	61	6.3	1	32-35	0	1	34	0.2
	62	4.2	1	36-43	6.1	1	35	2.4
	63	0	1	44	0	1	36	9.0
	64	0	IC202	1	5.4	1	37	GND
IC1101	1-2		1	2	12.0	1	38	0
	3	1.0	1	3	5.4	i	39	5.0
	4	2.2	1 1	4	GND	1 .	40	2.1
	5-6	•	1	5	0.5	1	41	2.2
	7	2.2	1	6-7	0	1	42	4.2
	8	0	1	8	0.5	1	43	0
	9-10	-	IC2701	1-3	4.4	1	44	
	11	2.2	1	4.0	-	1	45-47	4.6
	12	1.0	1	5-7	-	1	48	4.4
	13-14	•	1	8.0	0	IC1501	1	2.2
	15	GND	1	9.0	0.2	1	2	14.0
	16	2.2	IC1003	1-4	GND	1	3	-14.0
	17	4.0]	5-6	5.0	1	4	-16.0
	18-21	-]	7	GND	1 1	5	-1.4
	22	2.2		8	5.0	1	6	14.5
	23	0	IC251/261	1	-20.0] .	7	2.2
	24	•		2	0	IC681	1	13.3
	25	2.2]	3	20.0]	2	12.0
	26	•	1	4	0	1	3	GND
	27-30	2.1		5	10.0	1	4	2.3
ļ	31-33	-]	6	-20.0	IC682	1	5.7
	34	1.8]	7-8	0]	2	5.0
ĺ	35-37	2.1]	9	GND]	3	GND
Ī	38	4.1	l	10-11	0	1	4	2.3
Ī	39	GND	IC1531	1	3.7	IC683	1	2.4
İ	40	-]	2	0.3		2	GND
j	41	1.7	1	3	5.8	1	3	4.0
	42	3.1	l i	4	GND	i		
	43	2.1				All Volt	ages are ind	icated in Volts DC

Ref.No.	Pin No.	Voltage (V)		
IC684	1	11.9		
	2	GND		
	3	9.0		
IC685	1	5.8		
	2	GND		
	3	5.0		
IC686	1	5.6		
	2	5.0		
İ	3	GND		
	4	2.3		
IC572	1-3	6.0		
	6	9.0		
	7	GND		
	8-10	9.0		
	11-12	GND		
i i	13-14	4.0		
	15	0.8		
	16	0.6		
	17	0.5		
	18-20	0.3		
	21-22	NC		
i	23	0.2		
	25	4.0		
	26	4.7		
	28-30	GND		
	31	9.0		
	32	GND		
	33-35	4.4		
	37-39	GND		
	41	2.5		
	42	GND		
	44-45	2.7		
	46	2.6		
İ	47	8.7		
	48	NC		

		,	,
Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q102	4.7	0	0
Q103	0	1.7	0
Q106	31.4	32.0	32.0
Q107	0.5	0	0
Q203	0.6	0.1	0
Q251	0.6	0	0
Q252	0	0.6	0
Q253	13.4	-0.4	13.4
Q254	-2.1	0	0
Q255	-2.0	0	0
Q256	-0.1	2.3	0
Q257	0.6	0	0
Q259	21.5	10.5	21.1
Q260	0	21.5	0
Q351	2.8	1.7	3.5
Q352	1.8	0	2.5
Q571	6.4	9.0	5.7
Q581	0.6	0	0
Q1001	0.3	0	1.0
Q1105	3.0	5.6	2.4
Q1107	3.0	5.8	2.4
Q1108	5.8	11.8	5.2
Q1502	0.4	9.0	-3.7
Q1531	5.6	0	6.1
Q1532	9.0	4.4	9.0
Q1533	0.5	0.4	0
Q1544	1.1	4.5	0.6
Q1545	4.5	9.0	4.0
Q1447	4.4	-9.0	5.0
Q1548	6.4	9.0	5.7
Q1549	0.9	-0.2	1.4
Q1532	-1.2	3.0	-1.8



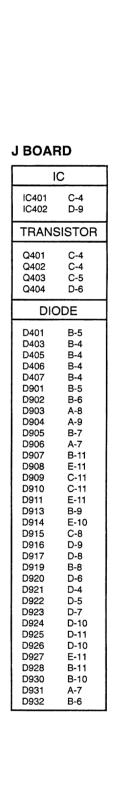


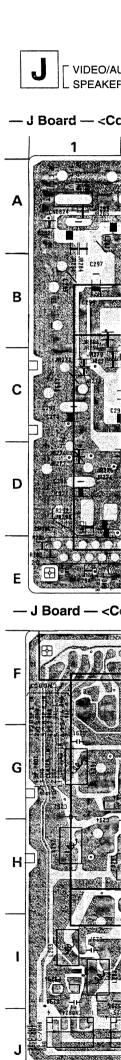
7 5 7 6 8 5 6 7 8 9 5

A6 A7 A8 A8

Ref.No.	Pin No.	Voltage (V)		
IC001	6	5.0		
	16-17	3.7		
	18	2.5		
	19	3.6		
	20-21	5.0		
	22-23	4.0		
	24	5.0		
	26	2.1		
	27	2.3		
	28	4.7		
	29	0		
	30	4.8		
	31	2.4		
	32	1.6		
	34	5.0		
	36	5.0		
	37	3.4		
	38	3.3		
	39-40	5.0		
	41	0.1		
	42	0.4		
	43	5.0		
l	44	4.8		
	48	0.3		
	49	1.3		
	50	5.0		
	51	2.4		
	52	5.0		
	53	4.5		
	54	5.0		
	55	3.8		
IC002	1	5.0		
	31-32	5.0		
IC2002	2	1.5		
	4-5	0.1		
	6-7	1.7		
	10	0.8		
	11-12	5.0		
	16	5.0		
	17	0.1		
	21	5.0		
	23	3.0		
	25	5.0		
	45	4.4		
	65	0.6		
	66-67	5.0		
	68	4.5		

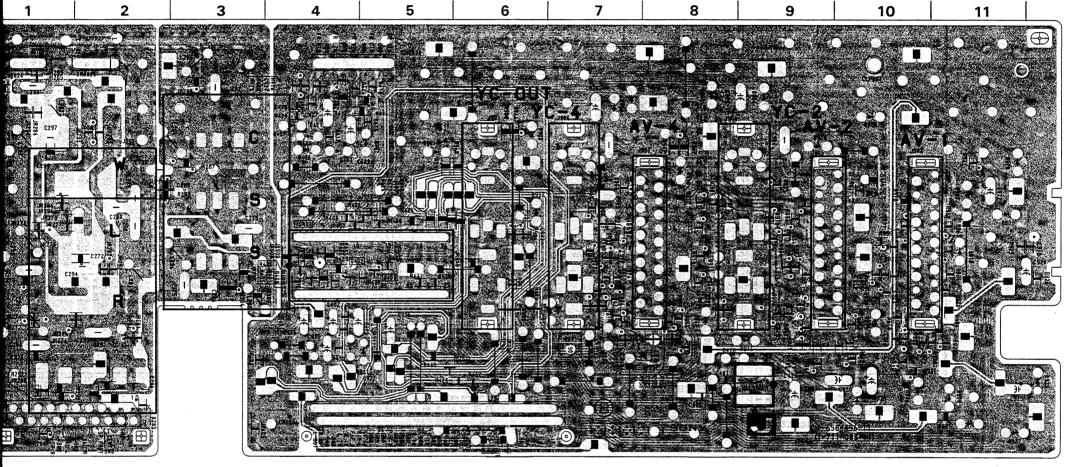
Pin No.	(B) Base	(C) Collector	(E) Emitter
Q002	4.2	4.7	4.8
Q005	-0.1	0	0
Q006	0	4.8	0.8
Q007	4.8	0.9	0.8
Q008	0.3	4.8	0
Q2001	0.3	5.0	0
Q2002	0	4.8	0
Q2004	0.3	4.0	0
Q2005	3.8	12.0	3.1
Q2006	0.1	0	0
Q2008	4.0	0.1	0



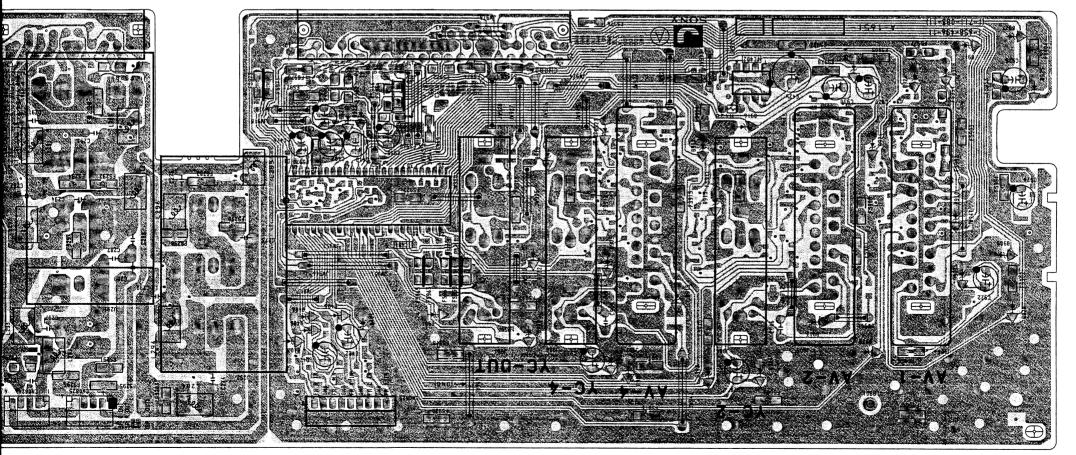


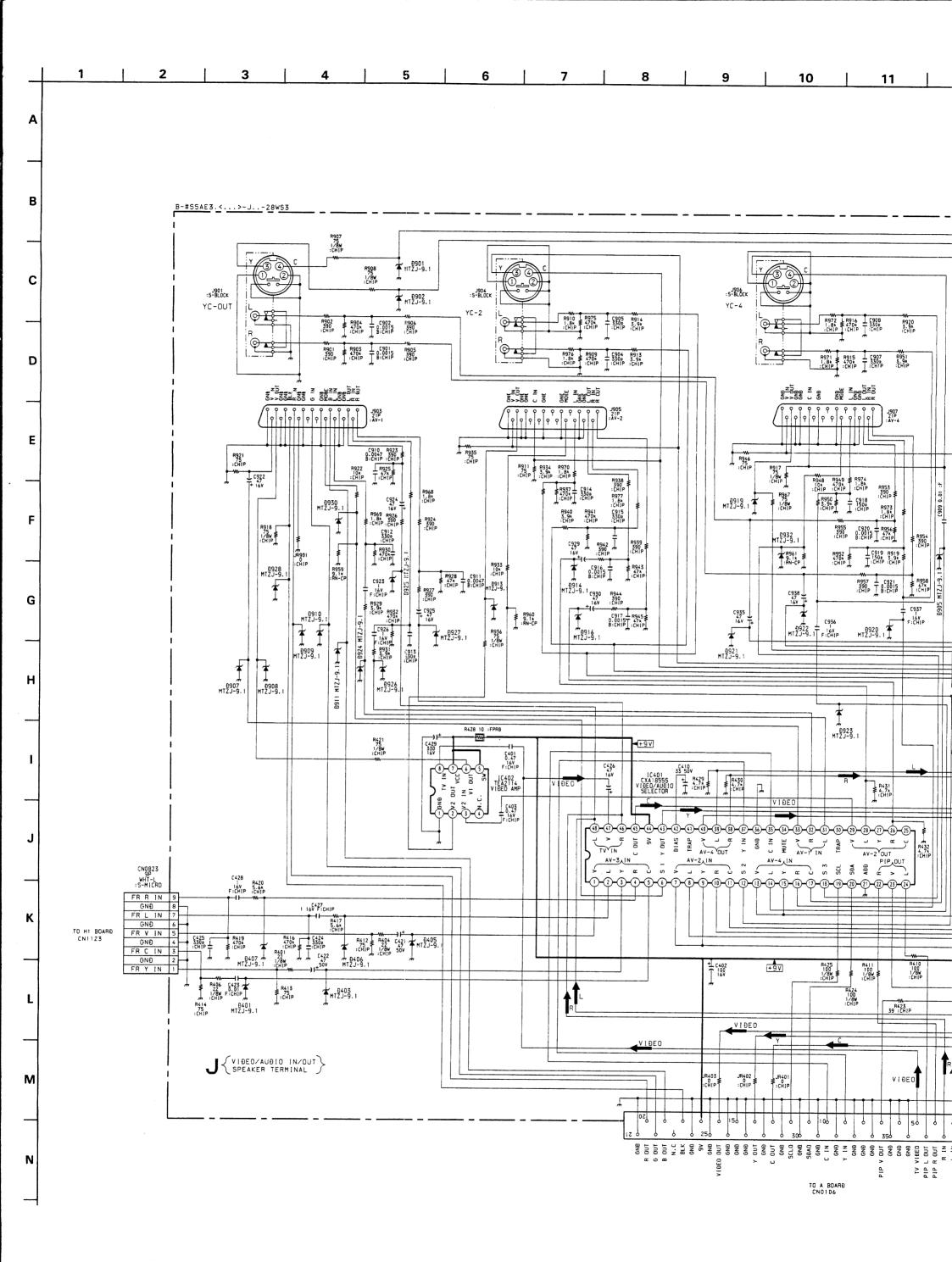
VIDEO/AUDIO IN/OUT, SPEAKER TERMINAL

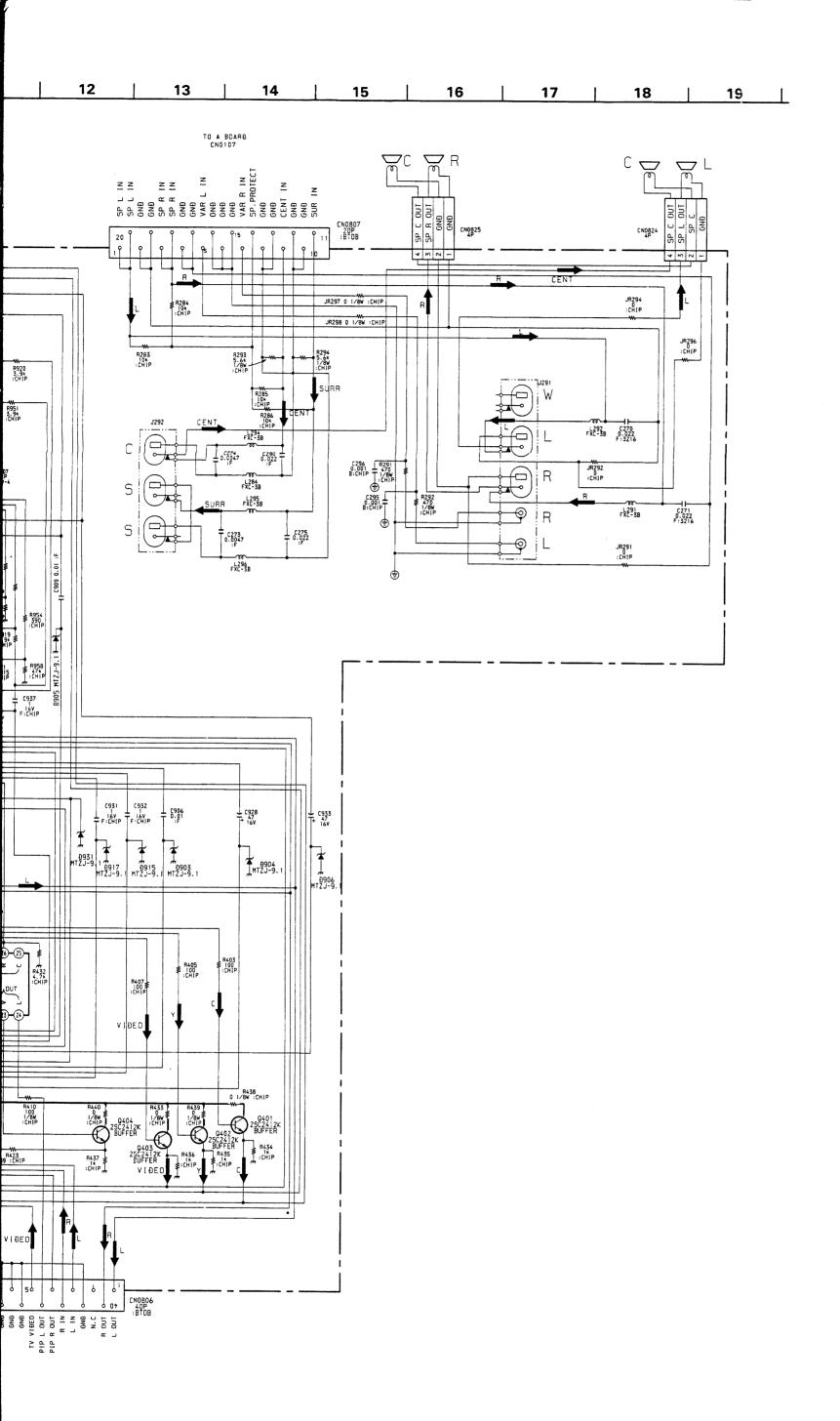
oard — <Conductor Side>



Board — <Component Side>





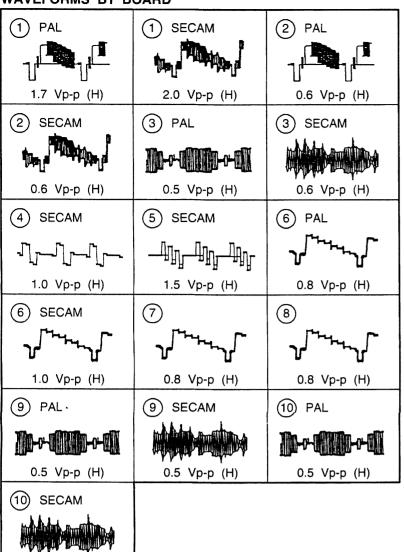


Ref.No.	Pin No.	Voltage (V)
IC401	1-5	4.5
	7-11	4.5
	13-17	4.5
	19-20	4.0
	22-33	4.5
	35	5.5
	37	5.5
	38-39	4.5
	40-41	4.4
	42	4.5
	43	5.4
	44	9.0
	45	5.5
	46	4.7
	47-48	4.5
IC402	2	1.8
	3	2.5
	5	8.8
	6	1.7
	7	8.8
	8	2.2

Pin No.	(B) Base	(C) Collector	(E) Emitter
Q401	5.7	9.0	-0.3
Q402	5.5	9.0	5.0
Q403/404	4.4	9.0	3.9

WAVEFORMS B1 BOARD

0.5 Vp-p (H)



B1 BOARD (1/3) * MARK

Model Ref. No.	28WS3A	28WS3B	28WS3D	28WS3E	28WS3K	28WS3U
C512	0.022MF		0.022MF	0.022MF	0.022MF	0.022MF
C535	0.1MF	0.022MF	0.1MF	0.1 MF	0.1MF	0.1MF
C1320	0.1MF	0.022MF	0.1MF	0.1MF	0.1MF	0.1MF
Q506	2SA1037K	-	2SA1037K	2SA1037K	2SA1037K	2SA1037K
R514	1K	-	1K	1K	1K	1K
R515	56K	-	56K	56K	56K	56K
R528	100	-	100	100	100	100
R532	-	0	-	-	-	-
R538	-	10K	-	-	-	-
R539	-	10K	-	-	-	-
R540	-	10K	-	-	-	-
R560	1M	-	1M	1M	1M	1M
R571	47	-	47	47	47	47
R577	_	0	-	-	-	-
R578	0	-	0	0	0	0

Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)
C301	10-11	3.2		53	3.1		10	2.4
	12	1.1		63	3.1	1	11	3.0
	13-16	3.2		65-66	3.1		12-13	2.8
	18-20	3.2		67	4.2	7	15	2.3
	21	2.3		68	3.1	7	16	0.1
	24	1.7		69	4.1	7	17	3.0
29	29	3.2		70	3.1	7	19-21	2.8
IC302	1	3.0	7	72	3.1		22	3.6
	3	0.4		73	1.6	7	24	3.6
	4	3.2		75	0.1		26	3.6
	6	1.4		76-77	3.1		27	8.8
	7-8	1.0	1	89	3.1	7	30	4.2
	9	0.4	IC503	31-33	1.2	7	31-32	4.0
	12	3.2		35	1.2	All Vol	tages are indi	cated in Volts DC
	13	0.5		37	1.9			
	21	2.4		40	2.0	7		
	22-23	3.2		41-42	5.0			
	24	0.1		43-44	3.0	_		

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52-53

54

56

60-61

62

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10

11-12

19

20

5-6

7

8

IC1505

3.0

0.6

0.6

4.8 0.6

4.8

1.4

1.2

1.2

1.5

1.5

4.8

1.0

1.0

1.0

1.0

1.3

1.4

1.4

1.4

4.8

8.0

3.2

4.2

2.9

0.5

7.0

4.2

2.2

0.1

Pin No.	(B)	(C)	(E)	
Ref.No.	Base	Collector	Emitter	
Q301	0.4	0	1.1	
Q302	1.0	0	1.6	
Q303	1.0	0	1.6	
Q304	0.5	0	1.2	
Q305	1.0	0	1.7	
Q306	2.1	6.1	1.4	
Q307	6.2	8.8	5.6	
Q308	6.2	8.8	5.6	
Q309	2.1	6.2	1.5	
Q501/502/503	0.6	0	1.3	
Q504	1.9	0	1.9	
Q507	1.2	0	1.9	
Q508	1.3	0	1.9	
Q509	1.2	0	1.9	
Q1301	3.4	8.8	2.8	
Q1302	3.4	3.4	2.9	
Q1303	0	7.5	0	
Q1304	7.5	8.8	6.9	
Q1307	0	8.7	0.8	
Q1316	0.6	0.3	0	
Q1318	3.2	0.2	3.2	
Q1319	3.2	0.1	3.2	

25

27

28-29

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31-35

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47-48

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51

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60

93

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7-9

11

12

15

16

17

19-20

21

23-25

26

27 28

29

30

31

32-33

34-35

IC502

2.2

0.1

4.2

3.0

1.2

4.8

4.8

3.1

1.6

1.2

1.2

3.2

3.1

3.1

3.1

1.0

1.6

1.0

1.5

3.2

1.5

1.8

1.8

1.2

1.6

3.2

1.6

1.7

3.1

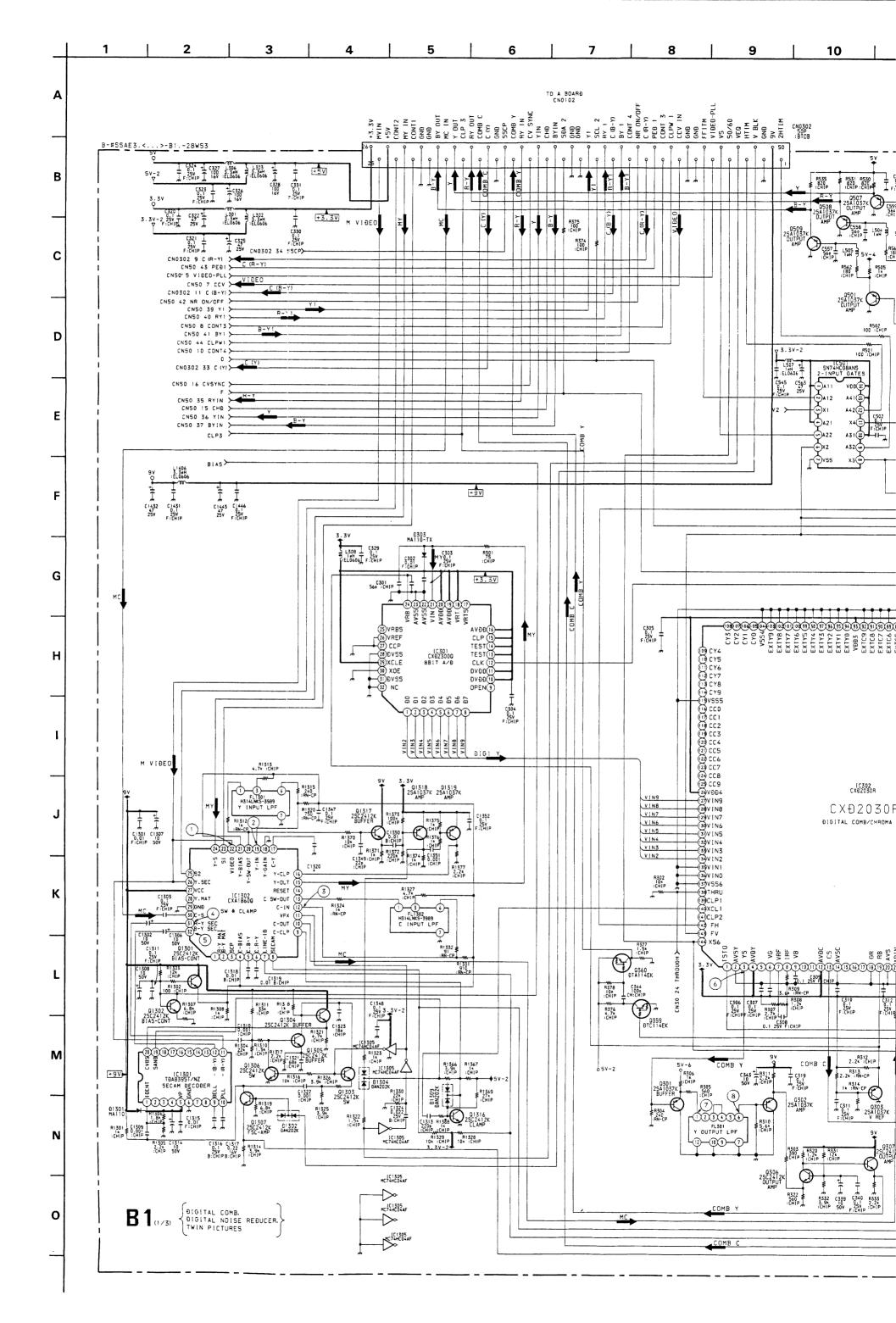
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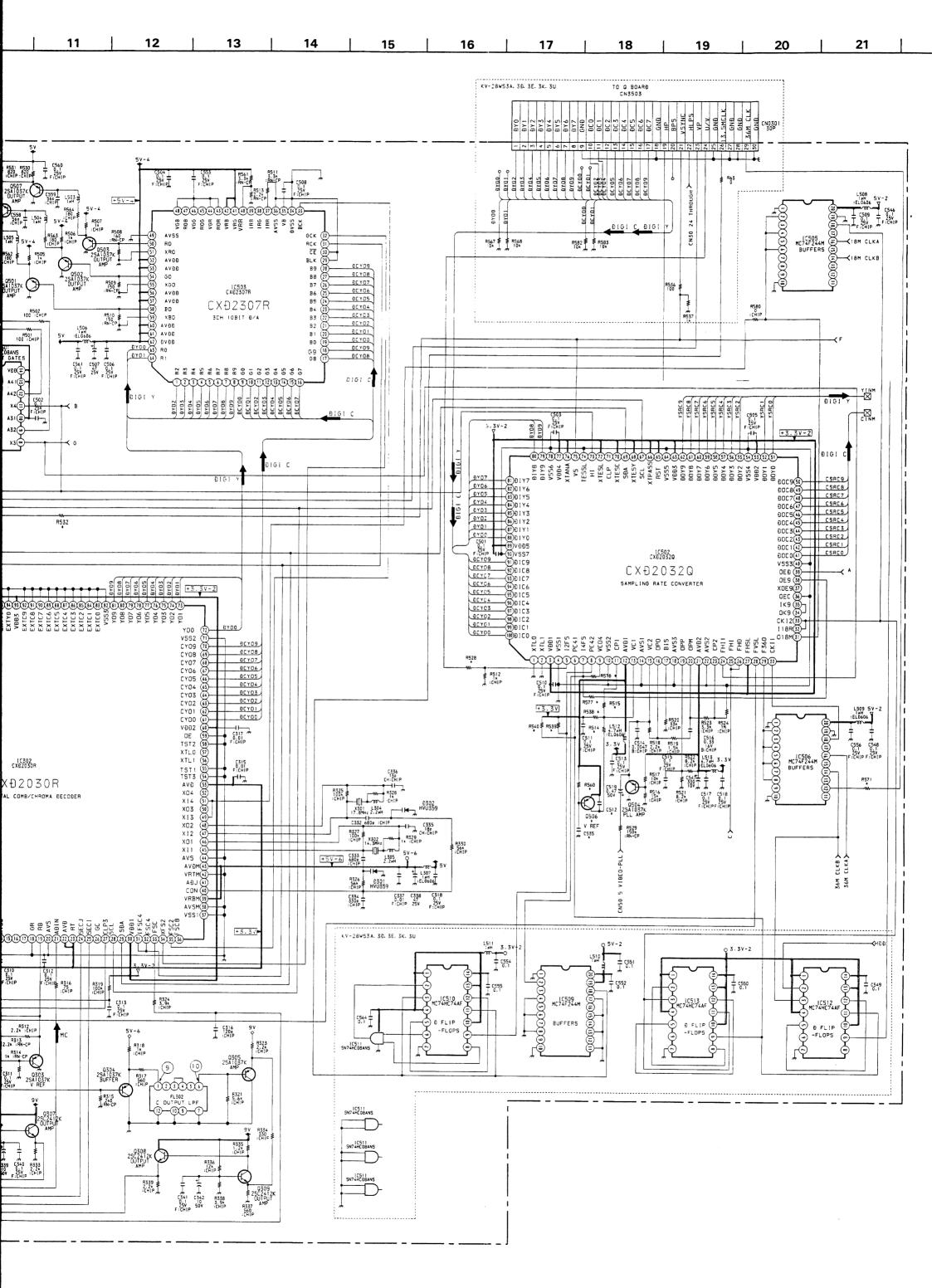
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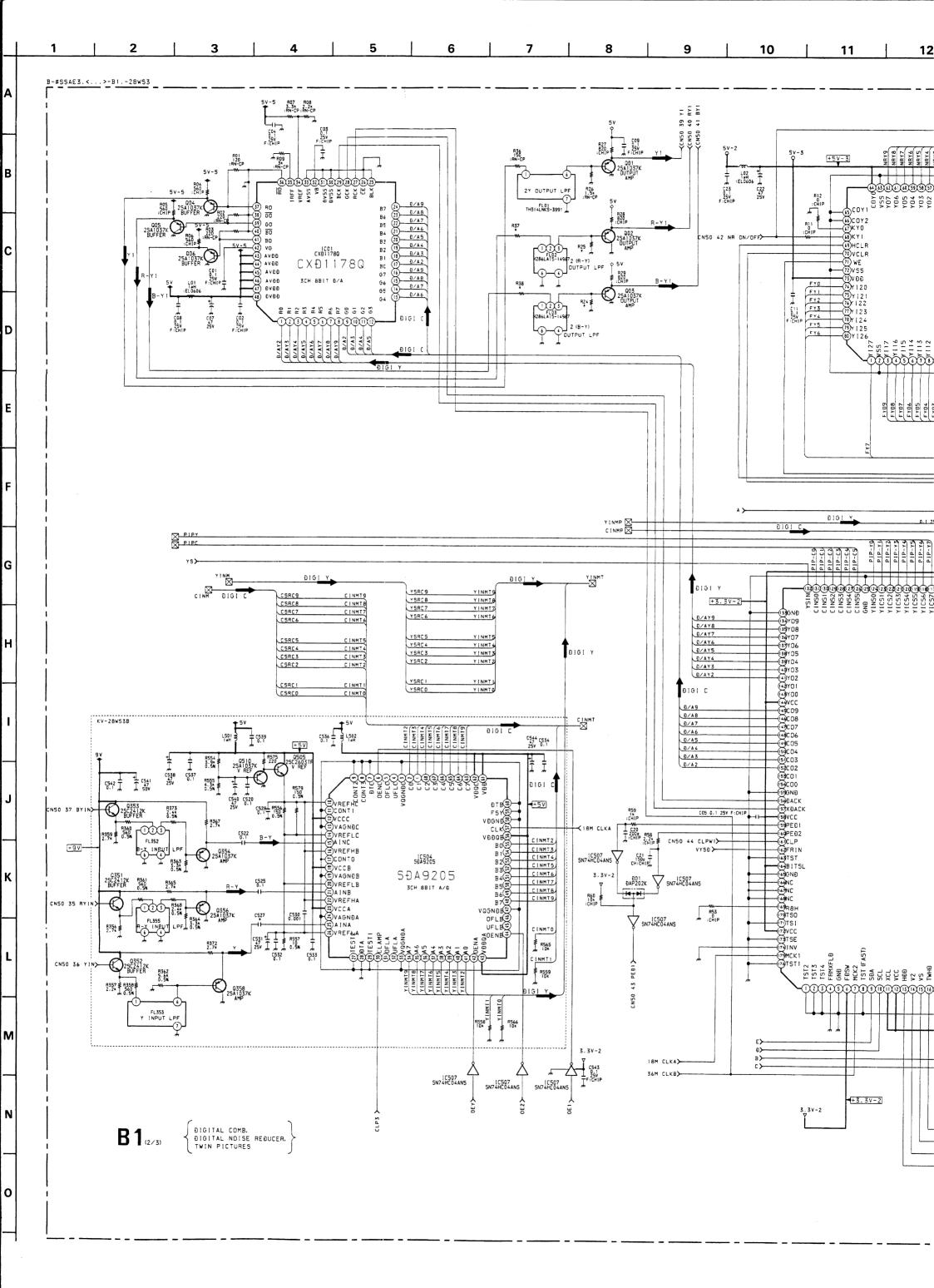
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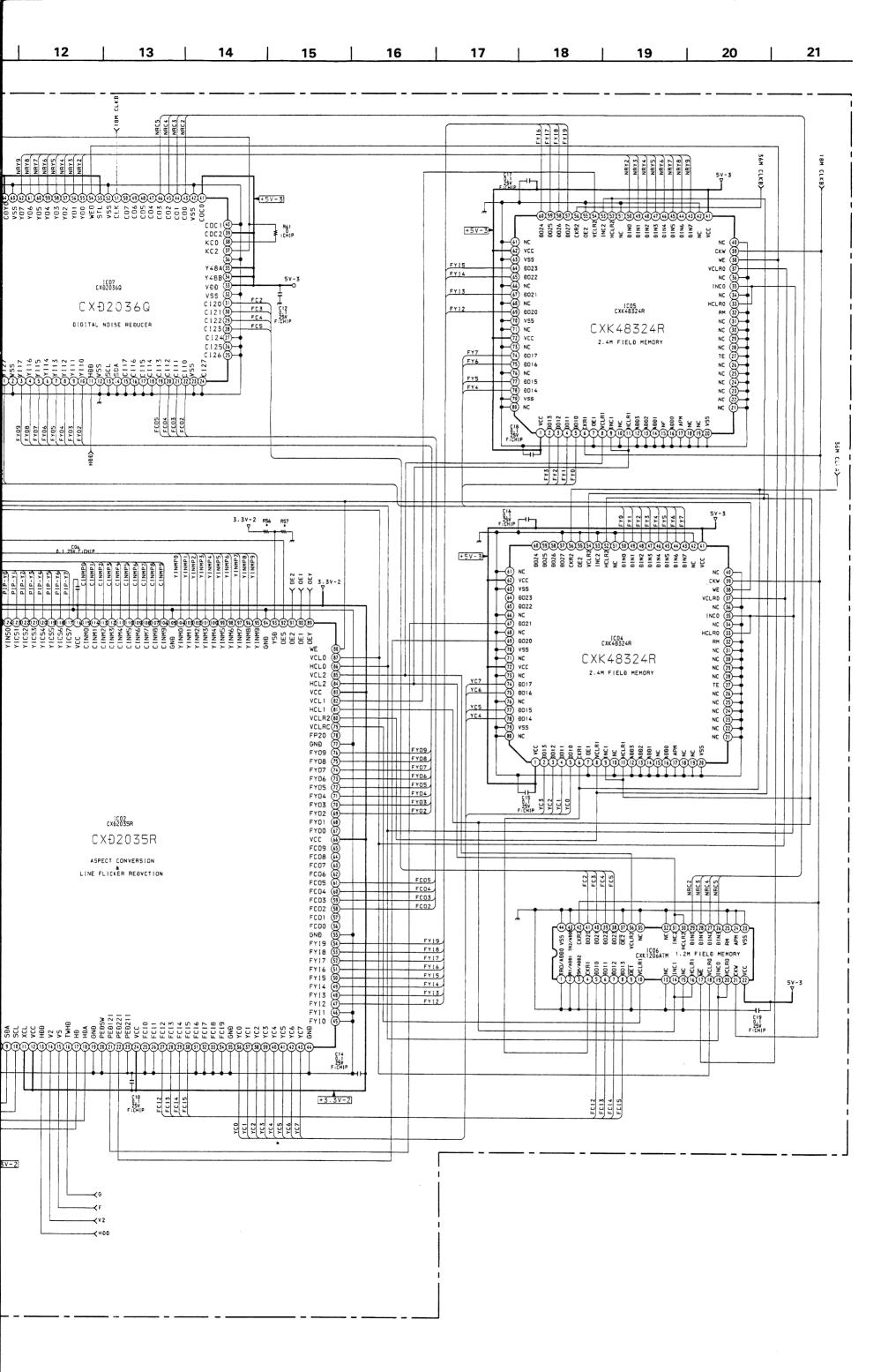
1.5

1.3









Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)
IC01	27	1.2	IC06	4	1.3
	28-29	1.5]	10	0
	32	1.1]	17	1.0
	34-35	1.9]	21	1.2
	37	0.3	1	22	4.8
	39	1.1		42	1.3
	41	1.1	IC07	11	1.6
	42	3.0]	33-35	4.8
	43-48	4.8	j	39	4.8
IC02	6	3.1		41	4.8
	7	1.3]	51	1.4
	9-10	4.2		53	4.8
	11-12	3.0]	54	1.0
	13	1.6]	64	4.8
	15	0.1		71	0.7
	16	1.6		73	4.8
	17	1.7			
	18	1.6]		
	21-22	0]		
	24	3.1	l		
	66	3.1			
	79-82	0			
	83	3.0			
	84-87	0	1		
	88	0.7]		
	89-91	3.0	l		
	92-93	0			
	132	Ō			
	144	3.1			
	156	1.5			
	157	3.1			
	158-159	0			
	160	0.1			
	164	3.1			
	172	3.1			
IC04	175	1.5			
1004	6	4.8			
	8-9	1.2			
		0			
	11	0			
	38	0.7			
	39	1.3			
	41	4.8			
	56	1.5			
ŀ	72	4.8			
IC05	1	4.8			

1

38

39 41

56 62 72

4.8 1.4

1.0

1.4

1.2 4.8

36H CLI A

Pin No. Ref.No.	(B) Base	(C) Collector	(E) Emitter
Q01	0.8	0	1.5
Q02/03	1.6	0	2.2
Q04	0.3	0	0.9
Q05/06	1.1	0	1.9

B1 BOARD (2/3) * MARK

Model Ref. No.	28WS3A	28WS3B	28WS3D	28WS3E	28WS3K	28WS3U
C527	_	0.222MF	-	-	-	
R24	1.5K	1K	1.5K	1.5K	1.5K	1.5K
R25	1.5K	1K	1.5K	1.5K	1.5K	1.5K
R37	150	100	150	150	150	150
R38	150	100	150	150	150	150
R56	-	10K	_			
R57	10K	-	10K	10K	10K	10K

B1 BOARD (3/3) * MARK

Model Ref. No.	28WS3A	28WS3B	28WS3D	28WS3E	28WS3K	28WS3U
C3778	47MF	-	47MF	47MF	47MF	47MF
C3790	100P	220P	100P	100P	100P	100P
D3703	RB411D	-	RB411D	RB411D	RB411D	RB411D
Q3714	DTC114EKA	-	DTC114EKA	DTC114EKA	DTC114EKA	DTC114EKA
R3736	47K	-	47K	47K	47K	47K
R3781	220	-	220	220	220	220
R3782	4.7K	-	4.7K	4.7K	4.7K	4.7K

Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)
IC3704	9-11	4.8	IC3713	1	2.4
	12	2.2	7	2	2.1
	13-14	4.8		3	2.0
	15	3.6	7	4-5	4.2
	16	4.8		6	1.3
	17-18	2.5		7	8.5
	19-20 4.8	4.8		8	5.0
21 0.9	0.9		10	4.6	
	24-26 0.5		11-12	3.8	
	27	2.3		14	2.0
IC3705	7	1.5	7	18-19	3.8
	9-10	4.8		21	3.9
	11	3.1		25	8.5
	12	2.4		26	3.6
	13	1,7	7 1	28	3.4
	14-15	4.8	7 1	29	4.7
IC3706	1	2.0	7	30	2.0
	2-3	1.6	7 1	31	1.5
	5-7	2.4	IC3714	3	0.3
	8	4.8		13-14	2.1
IC3707	1-2	3.1		16	4.8
	3-5	3.8			
	9	3.6			
	10	1.5			
	11	3.6	7		
	12	3.7	7		
	13-14	3.8	7		
	15	3.0	7		
1	16	4.8	7		

3.1 2.2 1.5

2.0

3.6 2.4 3.1 4.2

4.2

3.1

3.1 3.1 1.4 1.6 0.1 5.7

3.0

1.4

4.2 2.0

8.8

5-6

31

35-36

11-12 14

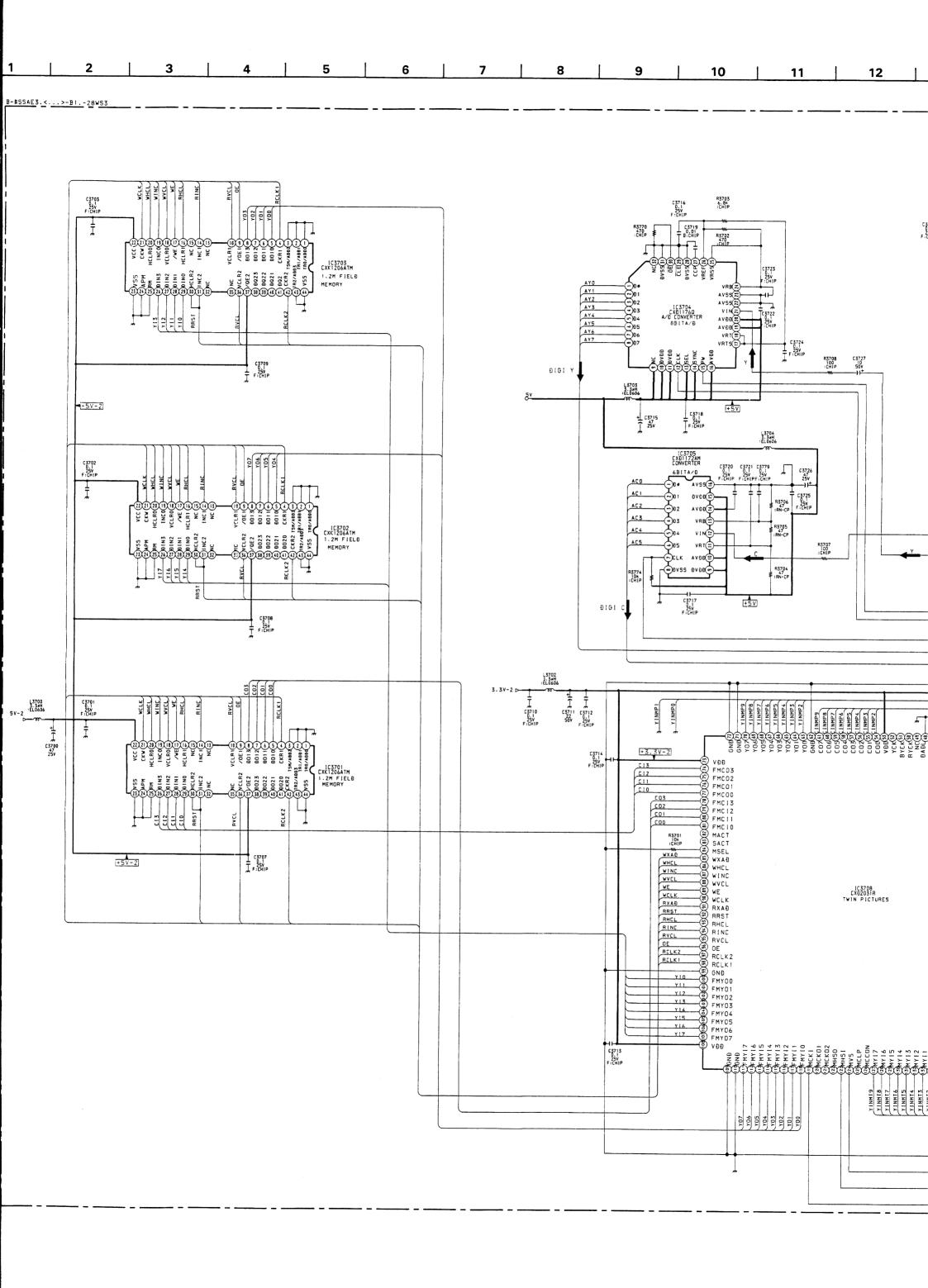
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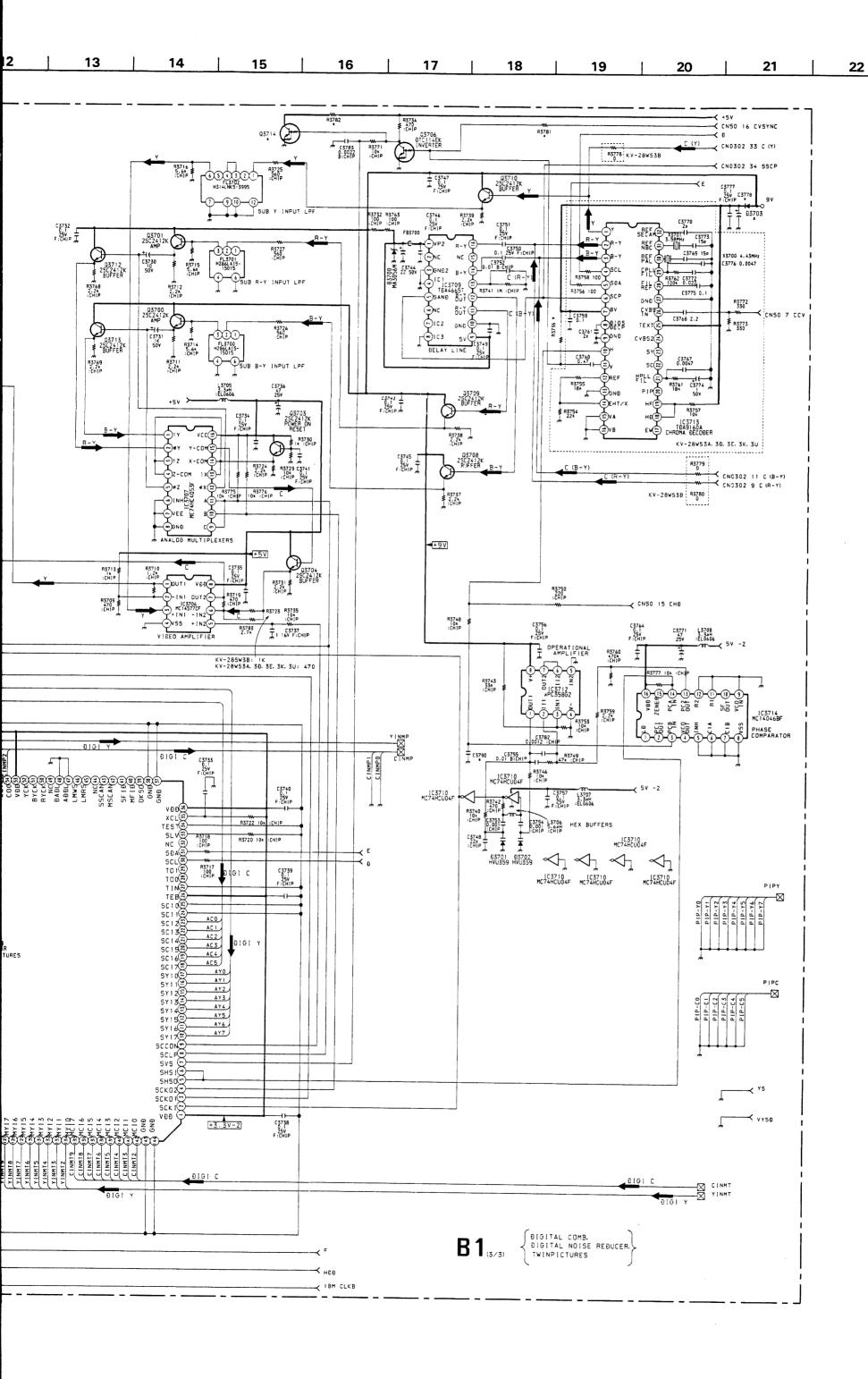
1 2-3

IC3712

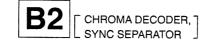
Pin No.	(B)	(C)	(E)
Ref.No.	Base	Collector	Emitter
Q3700	0	8.8	1.6
Q3701	2.2	8.8	1.6
Q3703	4.4	4.8	3.8
Q3704	3.1	4.8	2.5
Q3706	2.0	0.4	0
Q3708	0	8.8	2.4
Q3709	3.0	8.8	2.4
Q3710	2.4	8.8	1.8
Q3712/3713	3.7	8.8	3.0

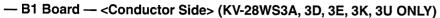
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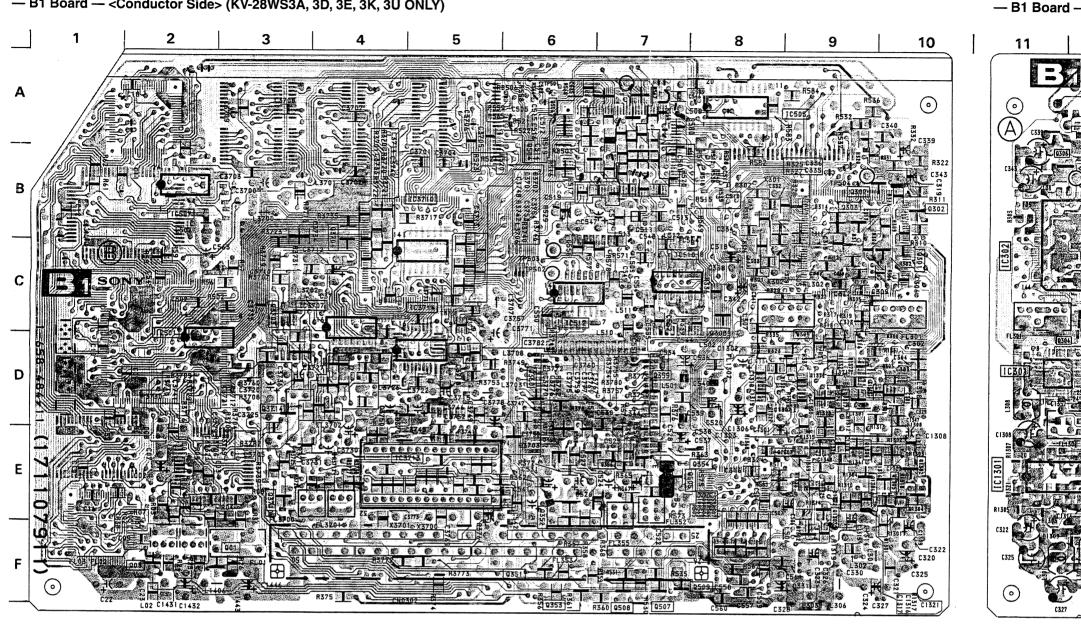


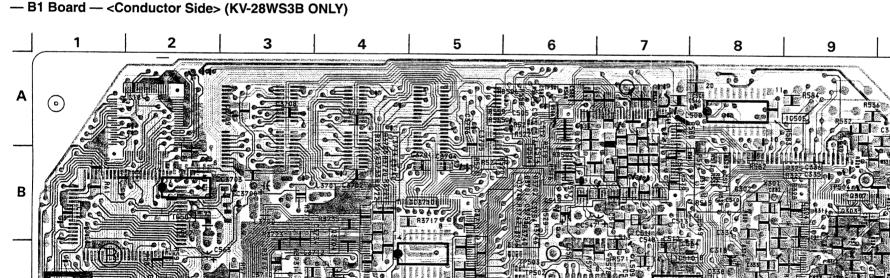


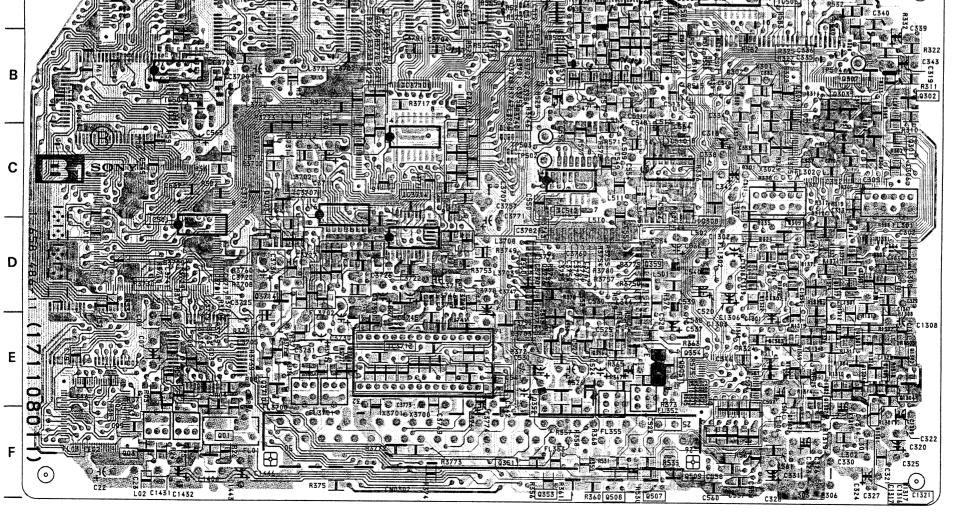








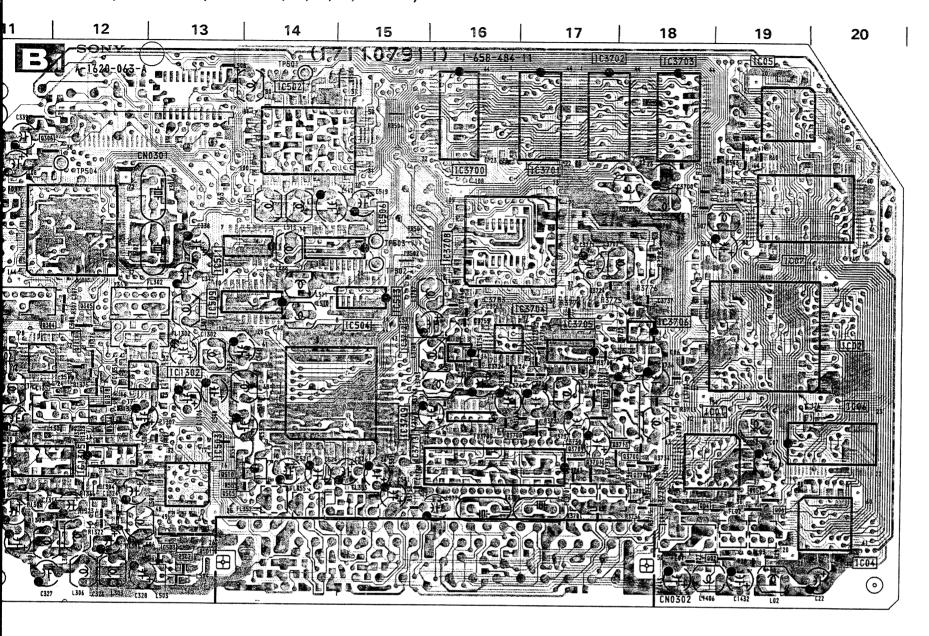




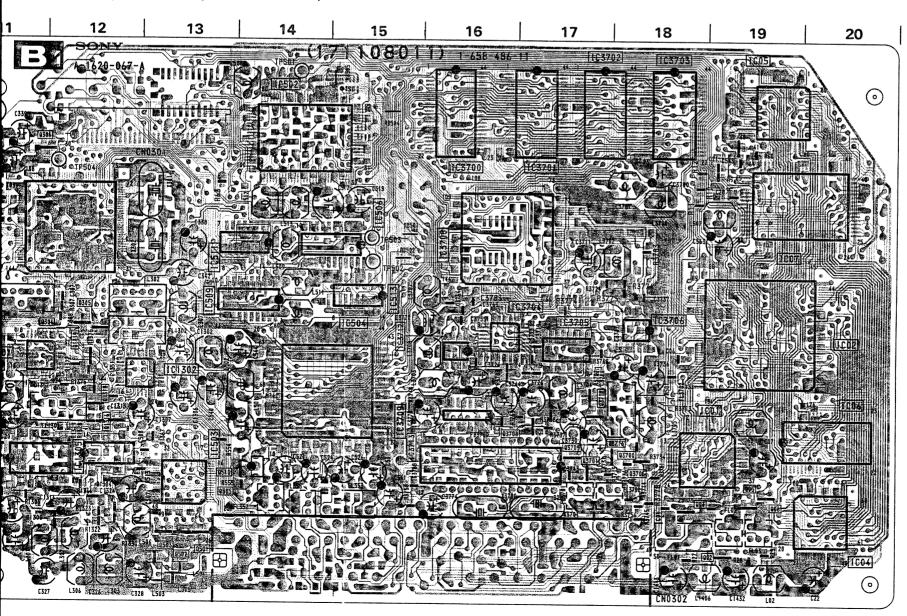
— B1 Board —

10

1 Board — <Component Side> (KV-28WS3A, 3D, 3E, 3K, 3U ONLY)



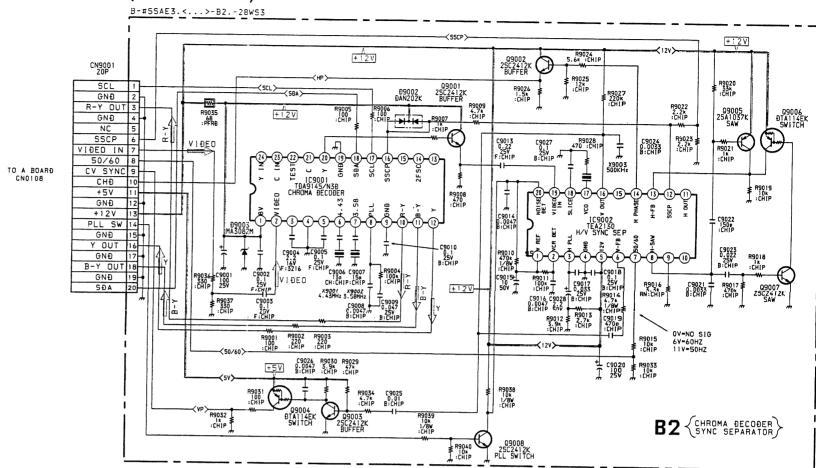
1 Board — <Component Side> (KV-28WS3B ONLY)



B1 B	OAF	RD			
	IC				
IC: IC:	02 04 05 06 07 301 302 501 503 503 504 505 506 507 509 510 511	D-19 D-20 F-20 A-19 D-20 C-19 D-11 C-12 A-14 E-13 D-15 B-12 C-16 C-15 E-11 D-13 E-12 B-17 A-18 C-17 C-17 C-17 B-15 B-18 C-17 C-18 C-19 C-19 C-19 C-19 C-19 C-19 C-19 C-19		Q354 Q356 Q356 Q358 Q359 Q360 Q501 Q502 Q503 Q505 Q506 Q507 Q508 Q509 Q1301 Q1302 Q1303 Q1304 Q1303 Q1304 Q1305 Q1306 Q1307 Q1316 Q1317 Q1316 Q1317 Q1316 Q1317 Q1316 Q1317 Q1318 Q13706 Q3701 Q3701 Q3703 Q3704 Q3704 Q3708 Q3701 Q3708 Q3701 Q3701 Q3703 Q3701 Q3703 Q3701 Q3703 Q3701 Q3703 Q3701 Q3703 Q3701	
TRA	NSIS	TOR	<u> </u>	DIOE	Έ
Q0 Q02 Q02 Q02 Q02 Q02 Q02 Q02 Q02 Q02 Q	2 3 4 5 5 5 5 7 7 8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	F-3 F-19 F-2 E-18 E-19 C-10 B-10 B-10 B-11 B-11 B-9 C-9 F-6 E-6 F-6	0 0 0 0 0	01 9301 9302 9303 9303 9301 9300 9300 9300 93701 93702 93703	A C E C F F E F D B B E

- o mark : KV-28WS3A,3D,3E,3K a
- mark : KV-28WS3B only

(KV-28WS3B ONLY)



A,3D,3E,3K and 3U only

Q354Q356Q358

Q359

Q360

Q501 Q502

Q503

Q504

• Q505

Q506 Q507

Q508

Q509

Q1303

Q1305 Q1306

Q1307

Q1316

Q1317

Q1318

Q1319

Q3701 Q3703 Q3704

Q3706

Q3709 Q3710 Q3712

D01 D301

D302

D303

D1301

D1302 D1304 D1309

D3700 D3701 D3702

D3703

DIODE

Q510Q1301Q1302

E-8 E-7

E-6

F-13

F-13

F-13

A-6 F-7 F-7

E-9

E-10 E-9

E-10

E-9

D-12 D-12

E-18

C-3 B-4

E-18

E-16

E-3 D-17

C-8

B-8

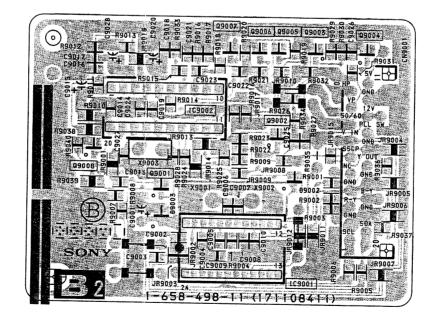
D-10

F-10 F-9 E-12

F-11

B-6 B-6 E-6

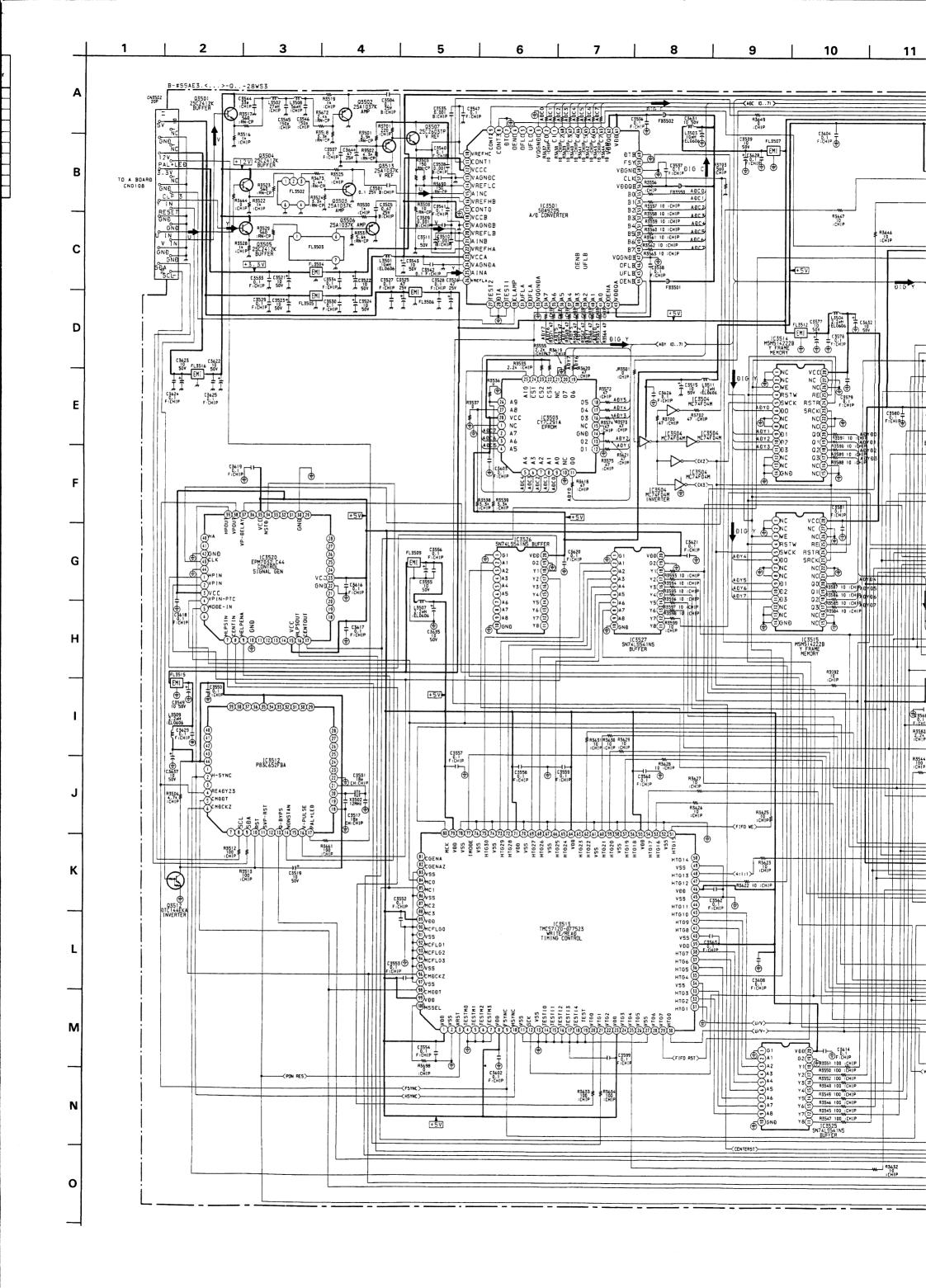
- B2 Board - (KV-28WS3B ONLY)

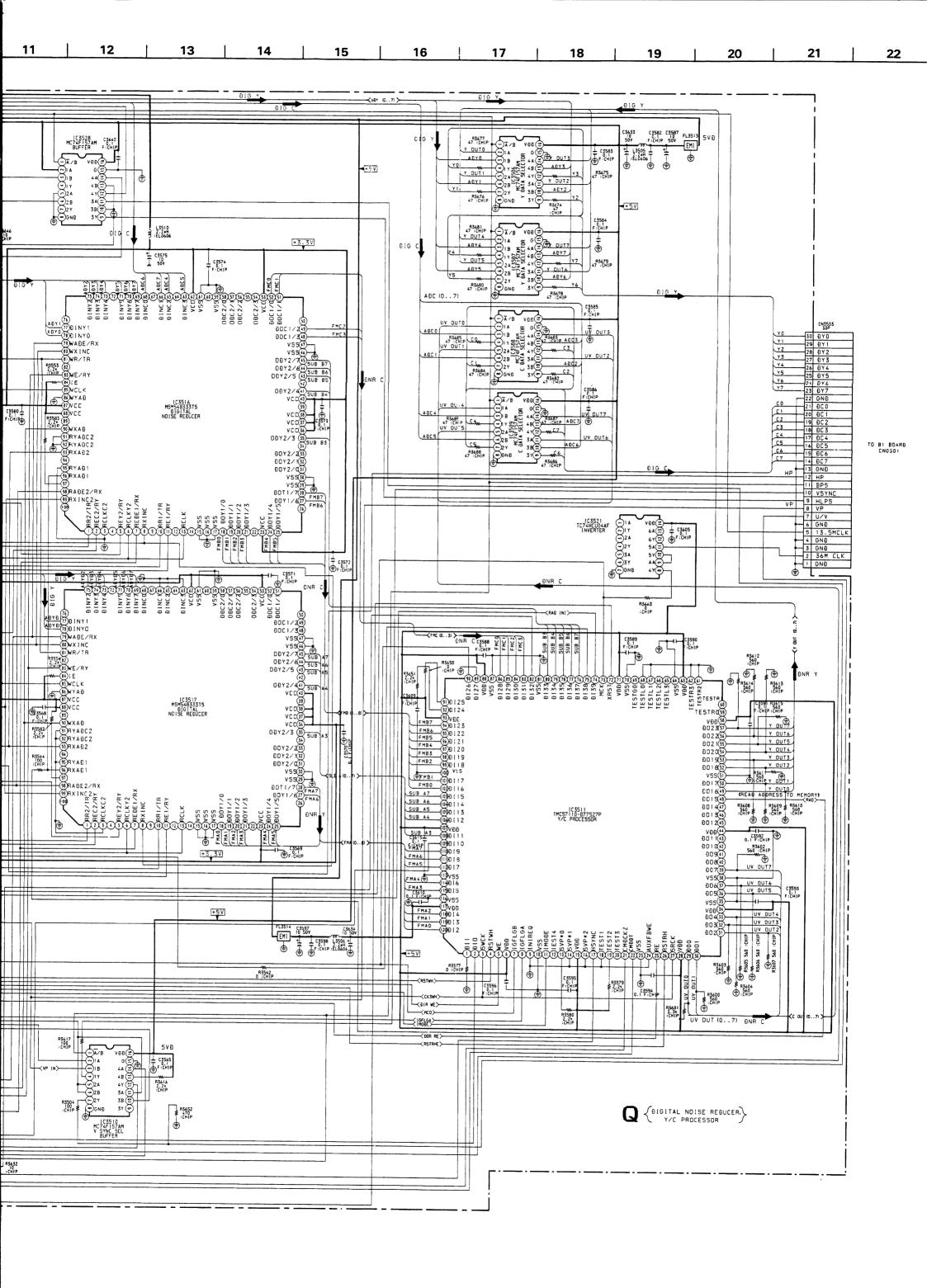


Ref.No.	Pin No.	Voltage (V)	Pot No	Die No	T 1/-4: 0.0	1 5		
	 	Voltage (V)	Ref.No.	Pin No.	Voltage (V)	Ref.No.	Pin No.	Voltage (V)
IC3501	6	0.1	1	13	0.4	_	72	4.8
	9	0.1	4	14	0.3		73	1.3
	10	2.4		16	4.8		75	1.1
	11	4.8	IC3508	1	4.8]	88	4.8
	12	4.8	_	2-7	1.2		91-93	4.8
	14	0.5		9	1.2]	107	4.8
	15	2.8		10	1.5	7	117	4.8
	16	2.4		11	0.9	IC3512	2	2.4
	18	4.7	1	12	1.3	1	4	2.4
	21	2.6	1	13	1.6	1	5	4.8
	22	2.4	1	14	1.3	1	8-9	4.0
	23	4.7	1	16	4.8	1	11	4.8
	25	2.2	IC3509	1	4.8	1	13	4.8
	26	0.5	1	2	0.9	1	14	1.5
	30	0.1	1	3	1.5	-	16	4.8
	42	4.4	1	4	1.2	1	17	0.1
	43	4.8	1	5	1.3	1	20	4.8
	56	4.8	1	6	1.6	1	21	2.5
	57	1.4	1	7	1.3	-	35	4.8
	59	4.2	1	9	1.2	4	44	4.8
	61	4.8	┨	10	1.5	100510		
	62	4.8	1		 	1C3513	1	4.8
	26	0.5	1	11	0.9	-	3	4.8
	27-29	-	1	12	2.4	-	8	4.8
	61	6.3	-	13	3.0	-	9	2.3
	62	4.2	┨	14	1.6	4	10	2.3
IC3503	22	4.8	100510	16	4.8	1	12	1.7
100000		1	IC3510	1	4.8	4	21	4.8
	23	4.3		4	0.1	4	23	4.8
	24 28	4.3	ł	5-6	2.3		30	2.3
IC3506	1	4.8	ļ	7	1.5	-	31	2.3
100500	2	4.8	1	9	1.6	4	36	3.9
	3	1.2		10-11	2.3	1	37	3.8
	4	2.1	1	12	4.3	1	39	4.8
		1.6	1	13	4.8	1	46	4.8
	5	1.2		14	4.2	-	48	1.2
	6	2.2		16	4.8		50	4.6
	7	1.6	IC3511	3	1.6		51	4.2
	9	1.6	1	5	1.8		55	4.8
,	10	2.0	1	6	4.8]	57	4.2
	11	1.1	1	11	4.8]	59	1.0
	12	1.6		13	4.8		60	1.8
	13	2.0	1 1	15	4.8		64	4.8
	14	1.1]	17	2.4]	71	4.8
	16	4.8]	19	4.8]	77	4.8
IC3507	1	4.8]	22	4.8		79	4.8
	2	1.3	j i	25	4.2]	80	1.3
[3	2.4]	26	1.8	1	89	4.8
	4	2.0		27	1.6	1	98	4.8
[5	1.2]	28	4.8	1	99	4.8
	6	2.0		29-30	1.2			
	7	1.7		34	4.8	1		
	9	1.4	 	44	4.8	1		
	10	1.5		58	4.8	1		
İ	11	0.9		63	4.8	1		
L	12	0.5				L		

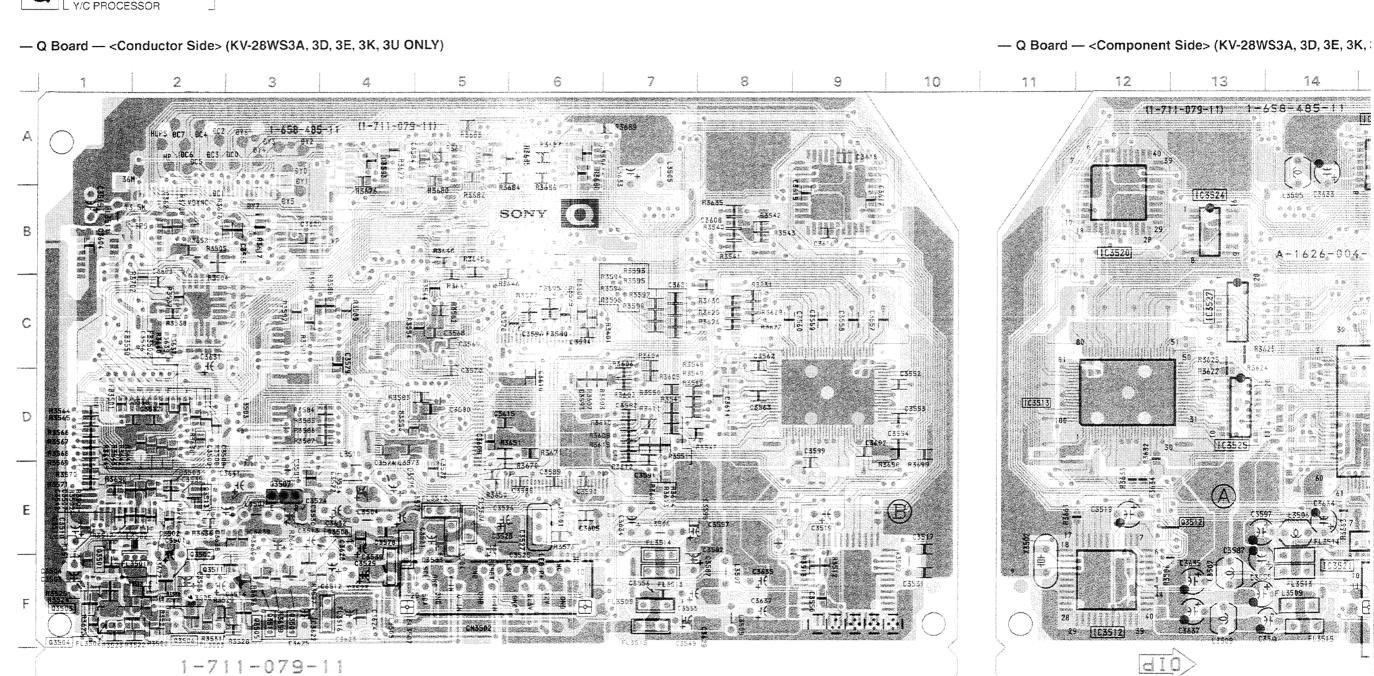
Ref.No.	Pin No.	Voltage (V)
IC3514	3	4.2
IC3515	5	1.6
	23	1.6
	25	4.2
	28	4.8
IC3516	6	1.6
IC3517	7-8	0.1
	10	0.1
	11	3.0
	13	1.6
	23	3.2
	36-38	3.2
	40	3.2
	53	3.2
	62	3.2
	79-81	0.1
	83-84	3.0
	85	1.6
	87-88	3.2
	90	0.1
	93	0.1
	98-99	0.1
IC3520	1	1.8
	2	0.1
	3	4.8
	8	41.8
	15	4.8
	17	4.8
	23	4.8
	34	1.4
	35	4.8
	38-39	2.4
	43	1.8
IC3521	1	0.5
	2-3	4.8
	8	1.2
	9-10	4.0
	11	1.5
	14	4.8
IC3525	6-7	3.8
	11-12	0.1
	13-14	3.0
	15-18	0.1
	20	4.8
IC3527	9	1.7
	12-18	G.1
	20	4.8
IC3528	1-2	4.8
	3	2.3
	6	2.3
	9	0.1
	12	0.1
	14	4 1
	16	48

Pin No.	(B)	(C)	(E)
Ref.No.	Base	Collector	Emitter
Q3501	5.2	12.0	4.6
Q3502	2.5	0	3.1
Q3503	-	0	•
Q3504	5.2	12.0	4.6
Q3505	5.6	12.0	5.0
Q3506	2.5	0	3.1
Q3507	3.1	4.7	2.4
Q3510	0	0	0
Q3512	3.8	0	0
Q3513	2.5	0	3.1

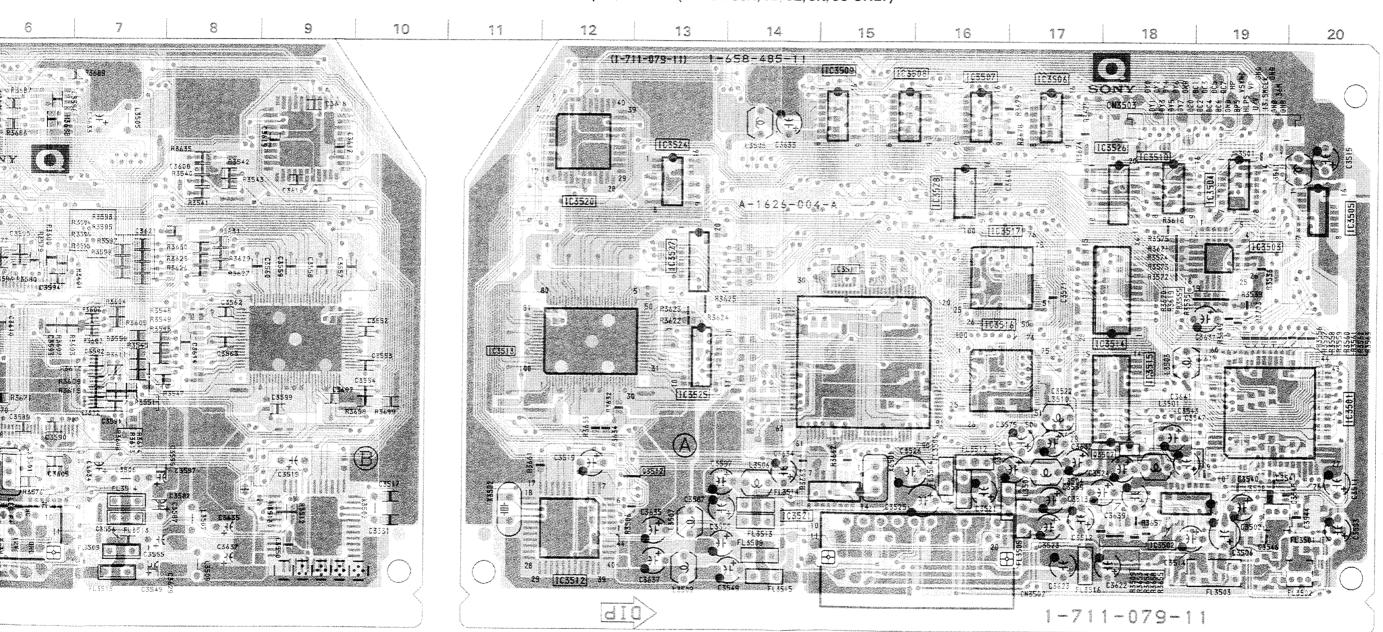








— Q Board — <Component Side> (KV-28WS3A, 3D, 3E, 3K, 3U ONLY)



Q BOARD

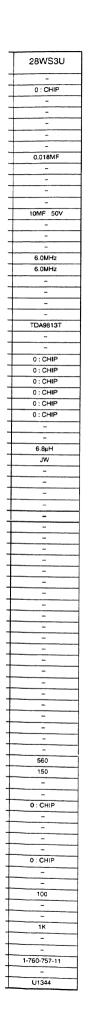
	<u> </u>
IC3501 IC3503 IC3504 IC3506 IC3507 IC3508 IC3509 IC3510 IC3511 IC3512 IC3513 IC3515 IC3516 IC3517 IC3520 IC3525 IC3521 IC352521 IC3525 IC3526 IC3527 IC3528	D-20 C-19 B-19 A-17 A-16 A-15 B-18 C-15 F-12 D-11 D-18 D-16 C-16 B-12 F-14 D-13 B-18 C-13 B-18
TRANS	ISTOR
Q3501 Q3502 Q3503 Q3504 Q3505 Q3506 Q3507 Q3512	E-1 E-2 F-1 F-3 F-2 E-3 E-13

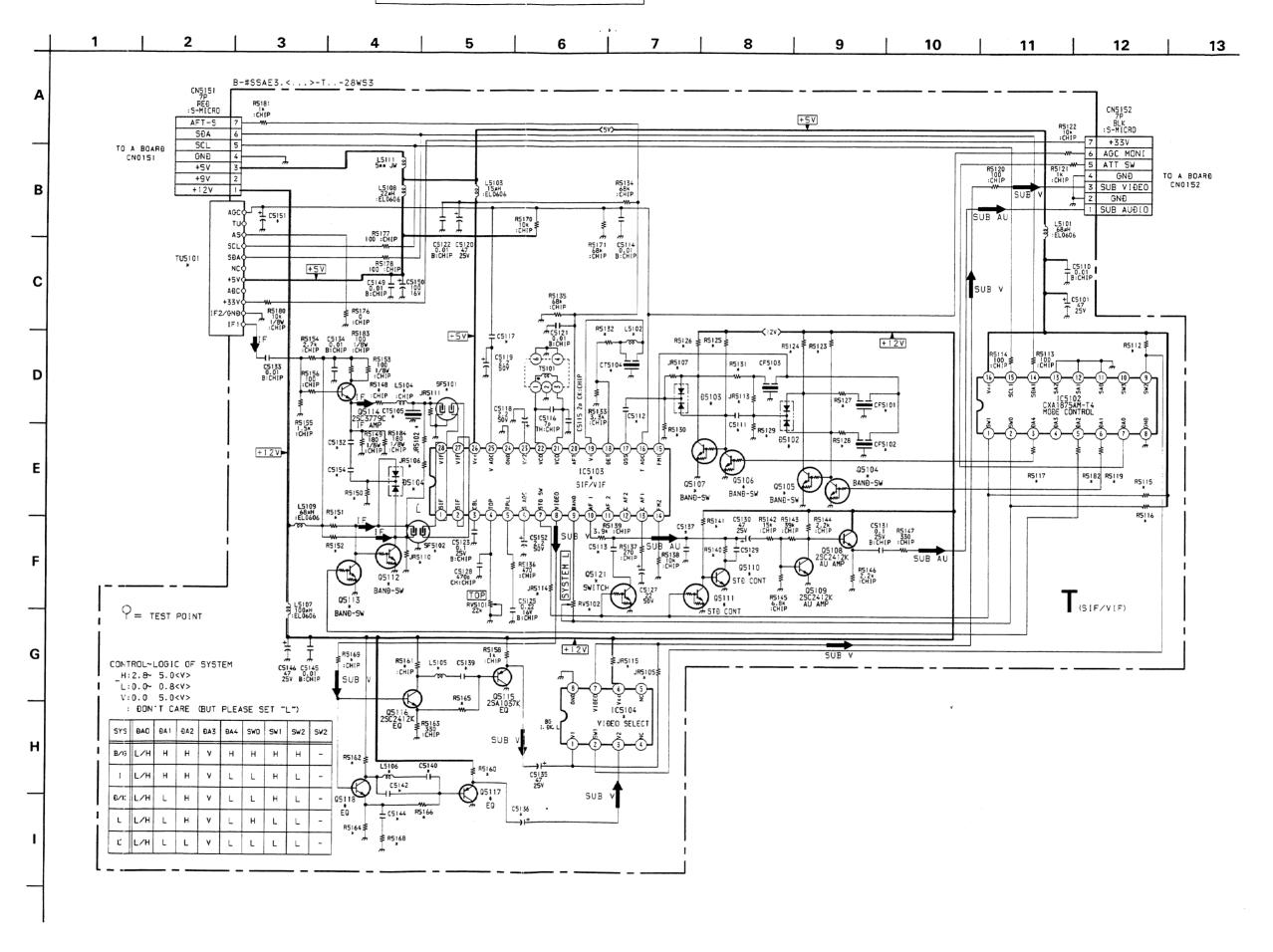
Q3513 E-2

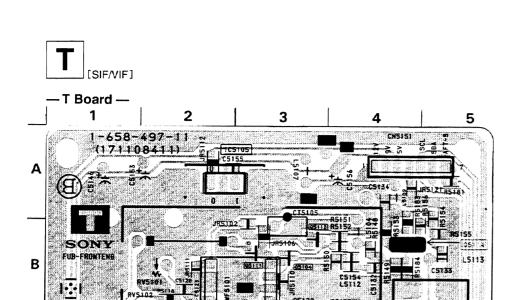
KV-

Model Ref. No.	28WS3A	28WS3B	28WS3D	28WS3E	28WS3K	28WS3U
C5111		0.01MF				
C5112	0.01MF	0.01MF	0.01MF	0.01MF	0.01MF	0:CHIP
C5113		0.018MF	-		-	-
C5117		1MF	-	-	-	-
C5129		0.0039MF			-	-
C5132		0.01MF	-		-	-
C5136	-	47MF 25V	-	-	-	-
C5137	0.018MF	-	0.018MF	0.018MF	0.018MF	0.018MF
C5139	-	100P	-	-	-	-
C5140		68P	-		-	-
C5142	-	33P	-	-	-	-
C5144	_	15P	_	-	-	-
C5151	10MF 50V	100MF 16V	10MF 50V	10MF 50V	10MF 50V	10MF 50V
C5154	-	0 : CHIP	-	_	-	-
CF5101	5.5MHz	6.0MHz	5.5MHz	5.5MHz	5. 5M Hz	-
CF5102		FILTER			-	
CF5103		5.5MHz			-	6.0MHz
CT5104	5.5MHz	5.5MHz	5.5MHz	5.5MHz	5. 5 MHz	6.0MHz
CT5105	-	TRAP	-	-	-	-
D5102	DAN202K	DAN202K	DAN202K	DAN202K	DAN202K	-
D5103	_	DAN202K	-	-	-	_
D5104	-	DAN202K	-	-	-	-
IC5103	TDA9813T	TDA9814T	TDA9813T	TDA9813T	TDA9813T	TDA9813T
IC5104		NJM2233BM	-	-		-
JR5102	-	0 : CHIP	-	-	-	-
JR5105	0 : CHIP	-	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
JR5106	0 : CHIP	-	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
JR5107	0 : CHIP	-	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
JR5110	0 : CHIP		0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
JR5111	0 : CHIP	-	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
JR5113	0 : CHIP	_	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
JR5114		0 : CHIP	-	-	-	-
JR5115	-	0 : CHIP	-	-	-	-
L5102	8.2µH	6.8µH	8.2µH	8.2µH	8.2µH	6. 8 µH
L5104	JW	0.22μΗ	JW	JW	JW	JW
L5105		10µH	-	-	-	-
L5106	-	39µH	-	-	-	-
Q5104	DTC144EKA	DTC144EKA	DTC144EKA	DTC144EKA	DTC144EKA	-
Q5105	DTC144EKA	DTC144EKA	DTC144EKA	DTC144EKA	DTC144EKA	-
Q5106	-	DTC144EKA	-	-	-	-
Q5107	_	DTC144EKA	-	-	-	-
Q5110	_	2SC2412K	-	-	-	-
Q5111	_	DTC144EKA	-	-	-	-
Q5112	-	DTC144EKA	-	-	-	-
Q5113		DTC144EKA	-	-	-	
Q5117		2SA1037K	-	-	-	
Q5118	_	2SC2412K	-	-	-	
Q5121		DTC144EKA	-	-	-	
R5112	-	10K	-	-	-	-
R5115		10K	-	-	-	-
R5116		10K	-	-	-	
R5117	_	1K	-	-	-	
R5119	1K	1K	1K	1K	1K	-
R5123	2.2K	2.2K	2.2K	2. 2 K	2.2K	
R5124	2. 2 K	2.2K	2.2K	2. 2 K	2.2K	-
R5125	_	2.2K	-	-	-	-
R5126		2.2K	-	-	-	
R5127	560	560	560	560	560	_
R5128	560	560	560	560	560	-
R5129	2.2K	2. 2 K	2.2K	2.2K	2.2K	
R5130	-	2.2K	-	-	-	
R5131	0 : CHIP	560	0 : CHIP	0 : CHIP	0 : CHIP	560
R5132	150	120	150	150	150	150
R5140		5.6K	-	-	-	
R5141		10K	-	-	-	
R5148	0 : CHIP	47	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
R5150		2.2K		-	-	
R5151		2.2K		-		
R5152	-	2.2K	-	-	-	
R5160		1K		-		
R5161	0 : CHIP	330	0 : CHIP	0 : CHIP	0 : CHIP	0 : CHIP
R5162	-	330	-	-	-	-
R5164	-	330	-	-	-	-
R5165	100	560	100	100	100	100
R5166	-	1K	-	-	-	
R5168	-	0 : CHIP		-	-	-
75169	1K	220	1K	1K	1 K	1K
R5182	-	1K	-	-	-	
RV5102	-	22K	-	-	-	-
SF5101	1-760-538-11	1-579-273-11	1-760-538-11	1-760-538-11	1-760-538-11	1-760-757-11
SF5102		1-760-244-11	-	-		-
5F5102	-	1-700-244-11		- 1		

	1	2 3 4 5 6
A		B-#SSAE3.<>-T28WS3 CN5151 RE0
В		CN0151 GND 4
_		AGC
С		* NCO +5V 1003:681P +5V +5V +5V +5V +5V +5V +5V +5V +5V +5V
-		#5.53 V #5.180
D		CS133 (CHIP B:CHIP CHIP RS153 100 (CS119 200 CS119 100 (CHIP RS164 SF5101 (CHIP RS164 SF5
		05114 C5116 29C3779C 29C3779C 500
E		C5154 - T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		69 AF 151 F 1 F 1 F 1 F 1 F 1 F 1 F 1 F 1 F
F		□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
_		Silvaria Silvaria
G		CONTROL~LOGIC OF SYSTEM _H:2.8~ 5.C <v> AS169</v>
_		V:0.0 5.0 <v> V:0.0 5.0<v> R5145 05115 051</v></v>
		SYS DAD DAI DA2 DA3 DA4 SWO SWI SW2 SW2 SW2 SUB DESCRIPTION OF THE SUB PROPERTY OF THE SUBPERTY OF THE SUBPERTY OF THE SUBPERTY OF THE SUB PROPERTY OF THE SUBPERTY OF THE SUB PROPERTY OF THE SUBPERTY OF THE SUBJECT OF THE SUBPERTY OF THE SUBJECT
Н		B/G L/H H H V H H H H − R5162
		1 L/H H H V L L H L - C5142 C5142 C5147
	1	B/K L/H L H V L L H L - 05118 E0 C5136 .
1		L/H L H V L H L L - RS164







T BOARD

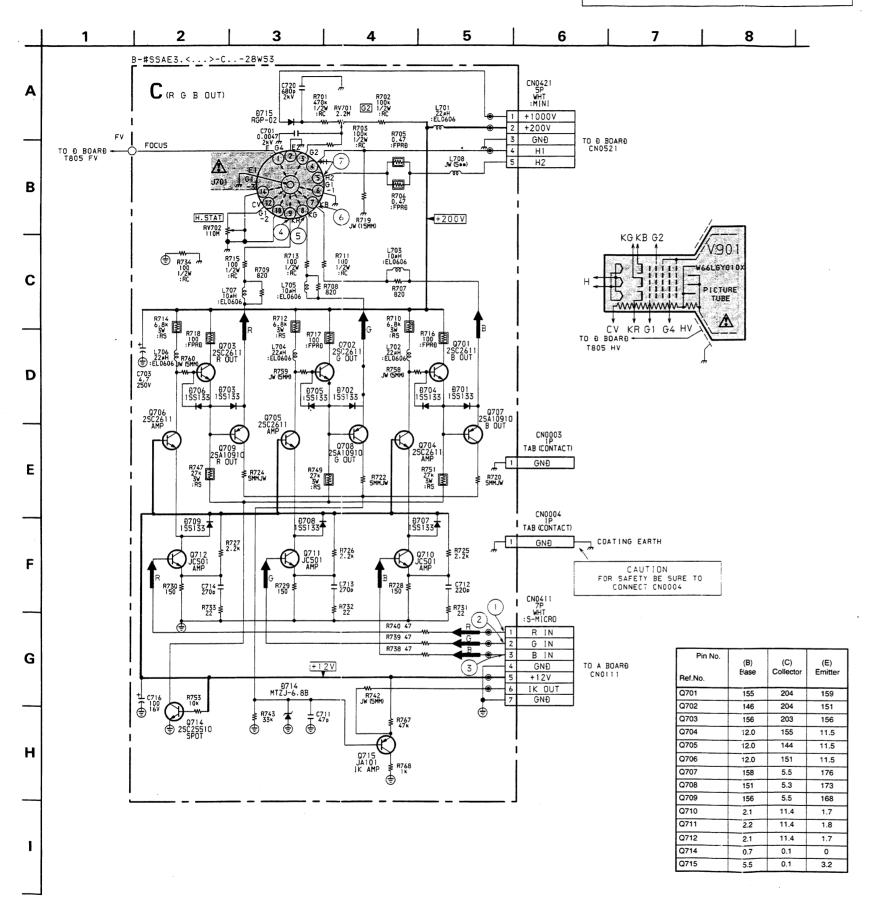
IC	
IC5102 IC5103 • IC5104	F-1 D-3 E-3
TRANSIS	STOR
○ Q5104 ○ Q5105 ● Q5106 ● Q5107 Q5108 ● Q5110 ● Q5111 ● Q5111 ● Q5112 ● Q5113 Q5114 Q5114 Q5115 Q5116 ● Q5117 ● Q5118 ● Q5121	E-3 D-2 E-3 D-4 D-2 D-1 D-1 E-3 B-3 B-5 E-2 D-1 E-2 E-2 C-1
DIOD	E
	D-3 D-4 B-3
VARIAE RESIST	
RV5101 • RV5102	B-2 B-2

0	mark: KV-28WS3A,3B,3D,3E and 3K only
•	mark : KV-28WS3B only

Ref.No.	Pin No.	Voltage (V)
IC5101	1	2.0
	3	0.6
	4	5.0
	6	2.3
	7	5.0
	8	2.0
IC5102	1-2	2.7
	3-7	4.6
	9	2.7
	14	5.0
	15	4.0
	16	5.0
IC5103	1-2	3.2
	4	1.0
	5	2.0
	6	2.8
	8	2.1
	10	2.6
	13	2.1
	14	1.7
	15	2.6
	16	0.9
	17	2.0
	18-19	1.8
	20	3.3
	21-22	2.7
	27-28	3.2

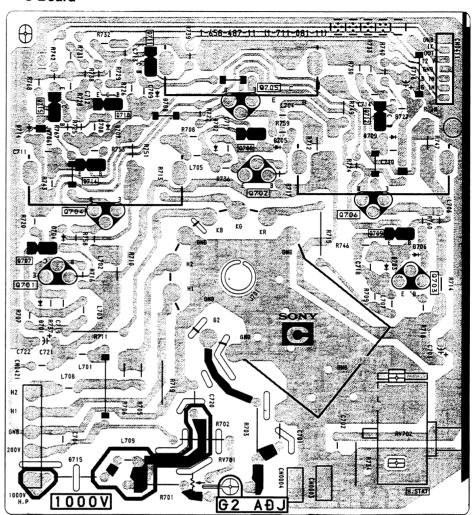
Pin No. lef.No.	(B) Base	(C) Collector	(E) Emitter
25101	4.3	4.8	5.0
5102	4.8	0	0
5103	0	2.7	0
5104	4.5	0	0
5105	0	6.2	0
5108	4.6	12.0	4.0
5109	0.6	4.6	0
5114	3.8	10.2	3.0
25115	1.5	2.1	2.0
25116	2.1	12.0	1.4



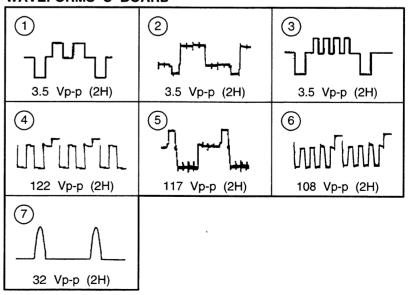




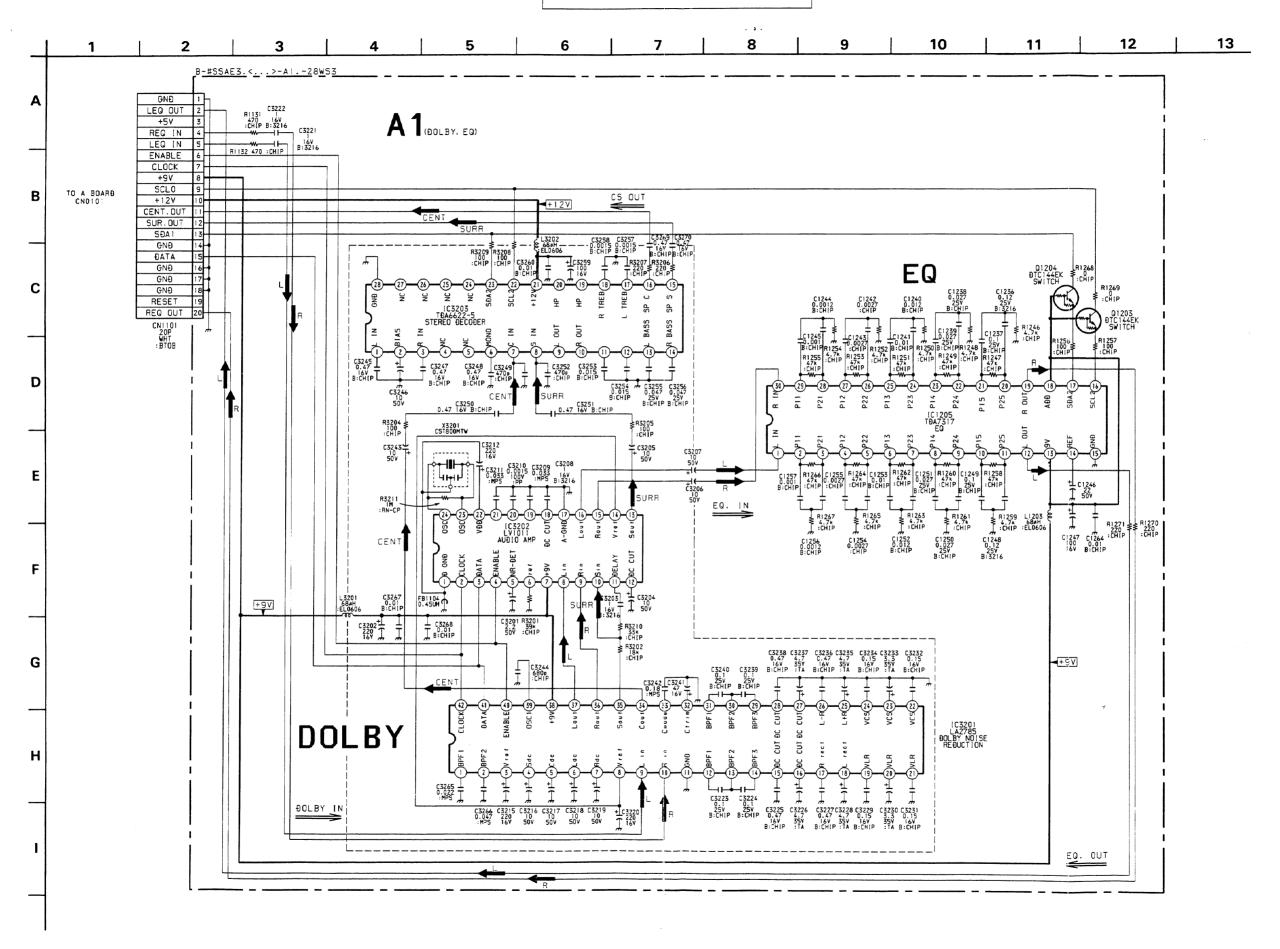
- C Board -



WAVEFORMS C BOARD

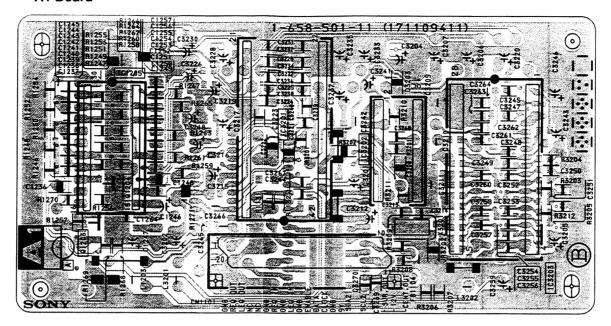


KV-28WS3





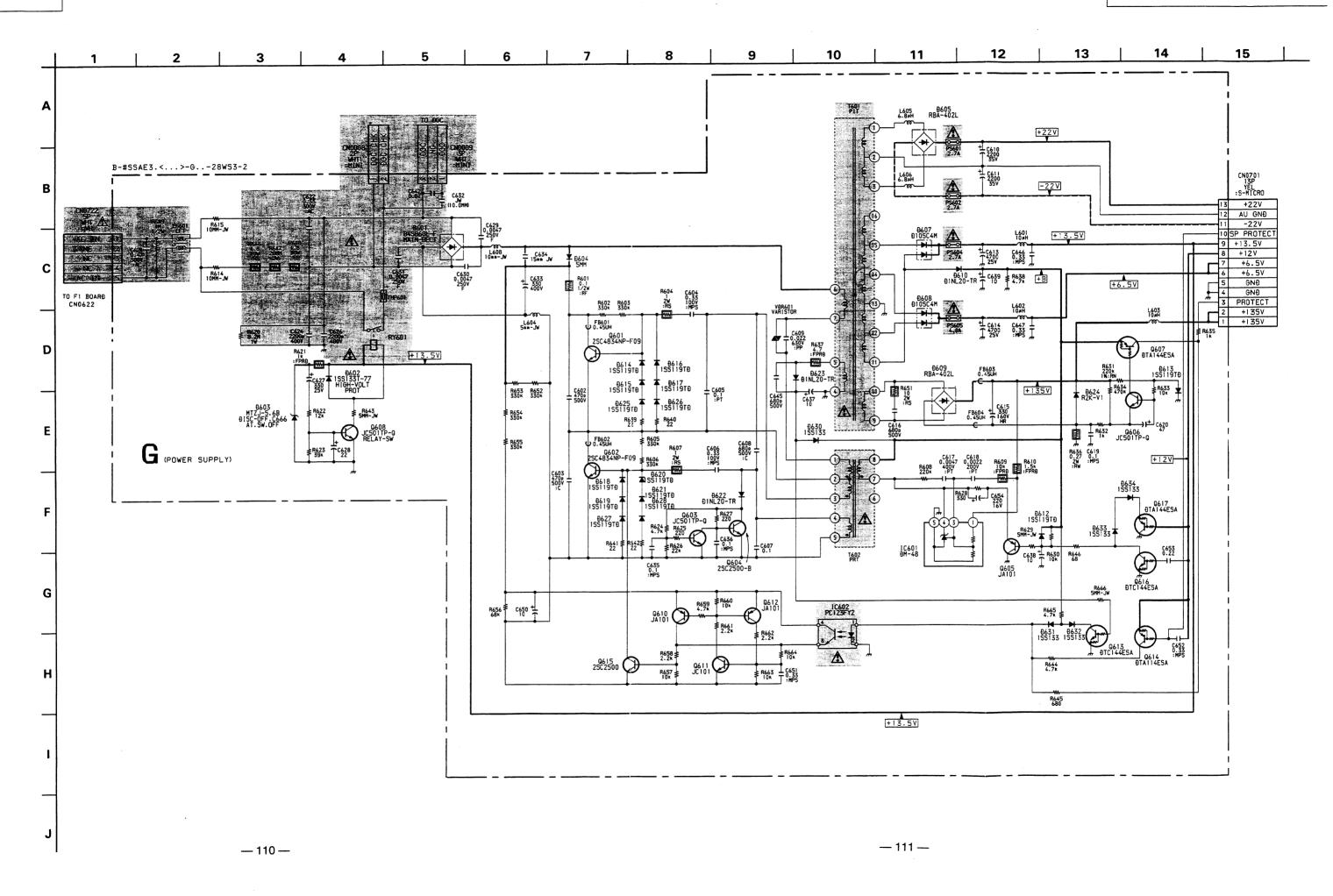
— A1 Board —

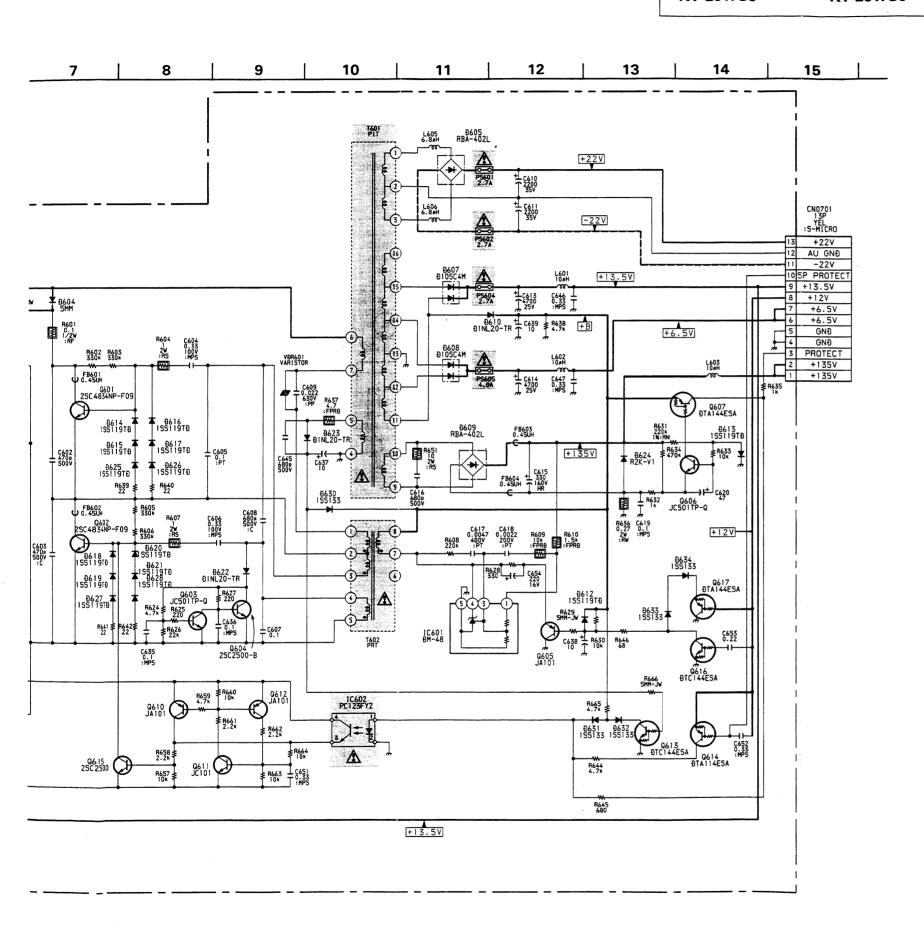


IC3201	1-10	4.4
	12-15	4.4
	16	5.1
	17	4.4
	18	5.1
	19-21	4.4
	22-24	2.3
	25	5.2
	. 26	4.3
	27	5.0
	28-37	4.3
	38	8.6
	40	4.8
	41	4.0
	42	5.0
IC3202	2	5.0
	3	4.0
	4	5.0
	5	3.1
	6	0.7
	7	8.6
	8-16	4.3
	18-21	4.3
	22	4.7
	23-24	2.3
IC3203	1-3	6.0
	6-8	6.0
	11-14	6.0
	15-16	5.3
	17-18	6.0
	21	12.0
	22	4.0
	23	5.0
IC1205	1-12	4.4
	13	8.8
	14	4.4
	16	4.0
	17	5.0
	18	8.8
	19-30	4.4

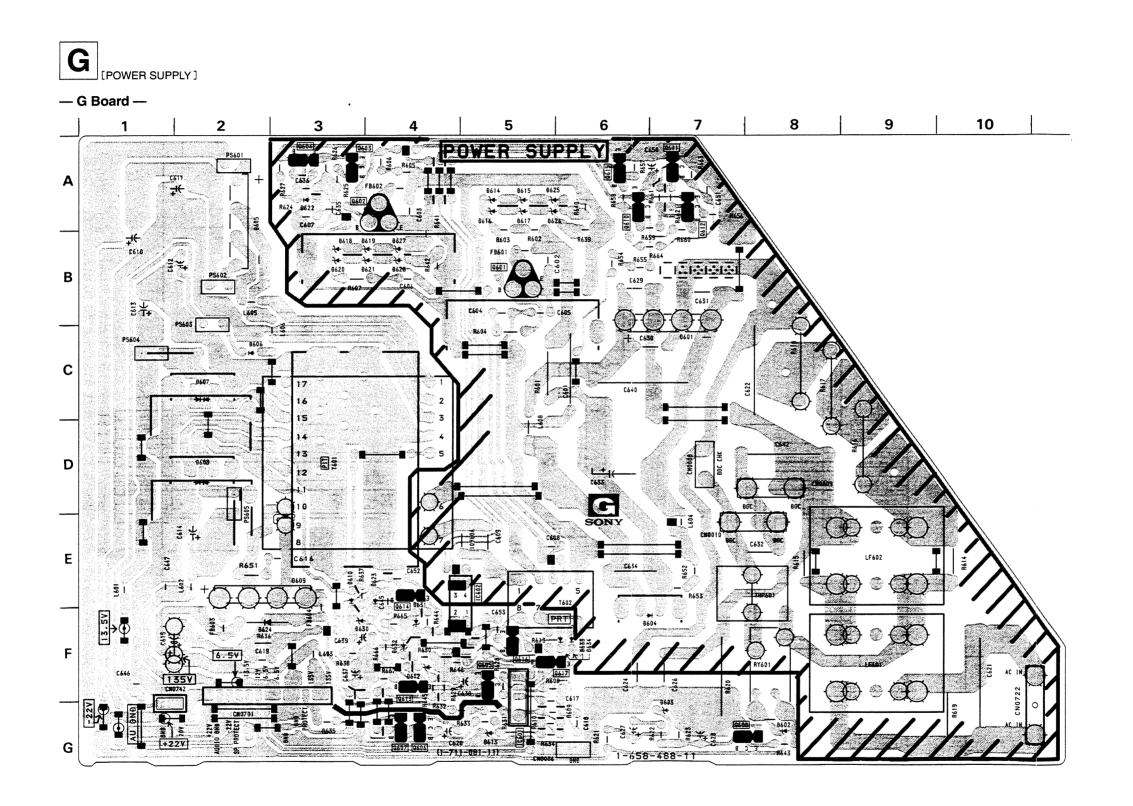
Ref.No. Pin No. Voltage (V)

Pin No.	(B) Base	(C) Collector	(E) Emitter
Q1203	8.8	4.0	4.0
Q1204	8.8	5.0	5.0

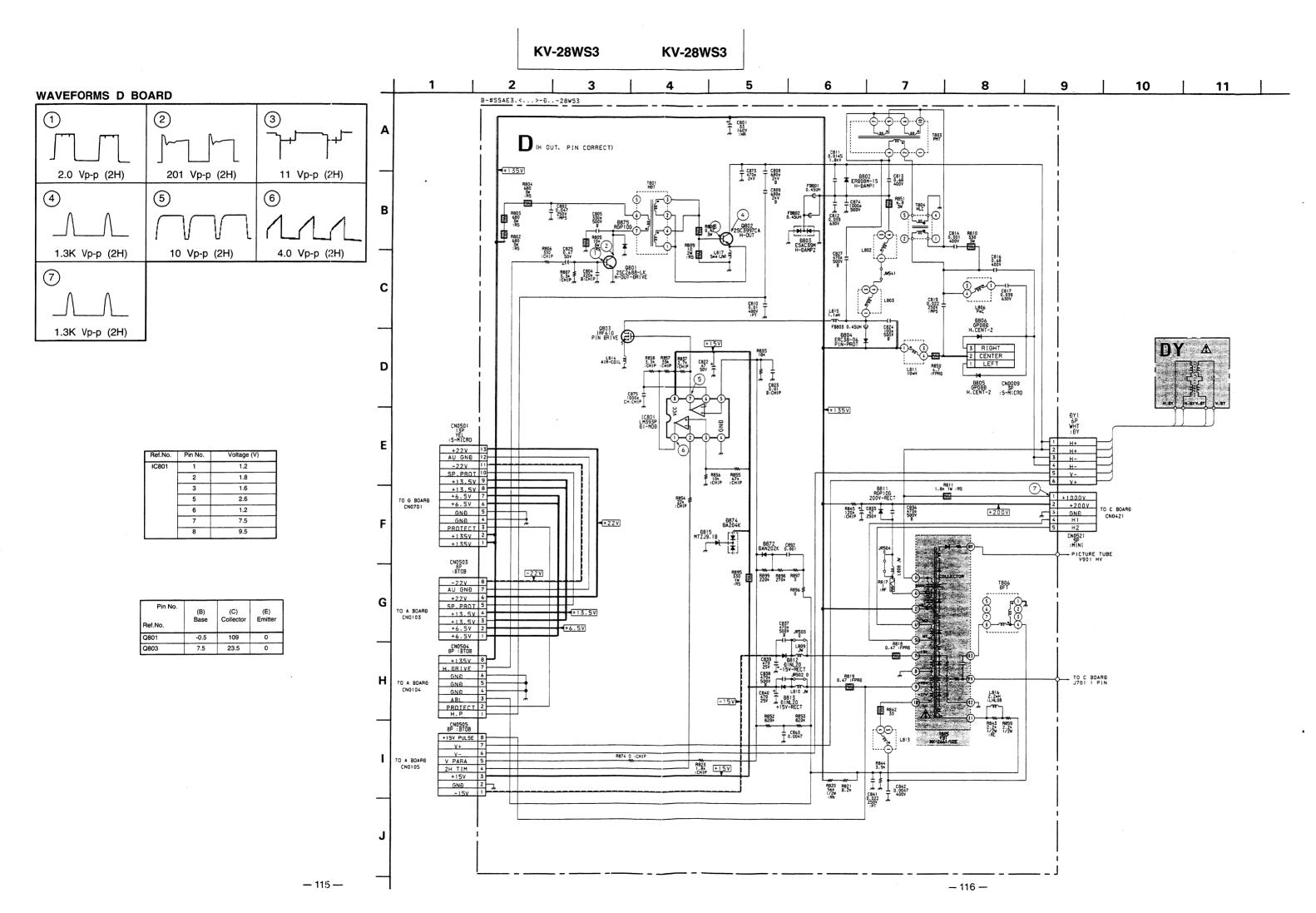


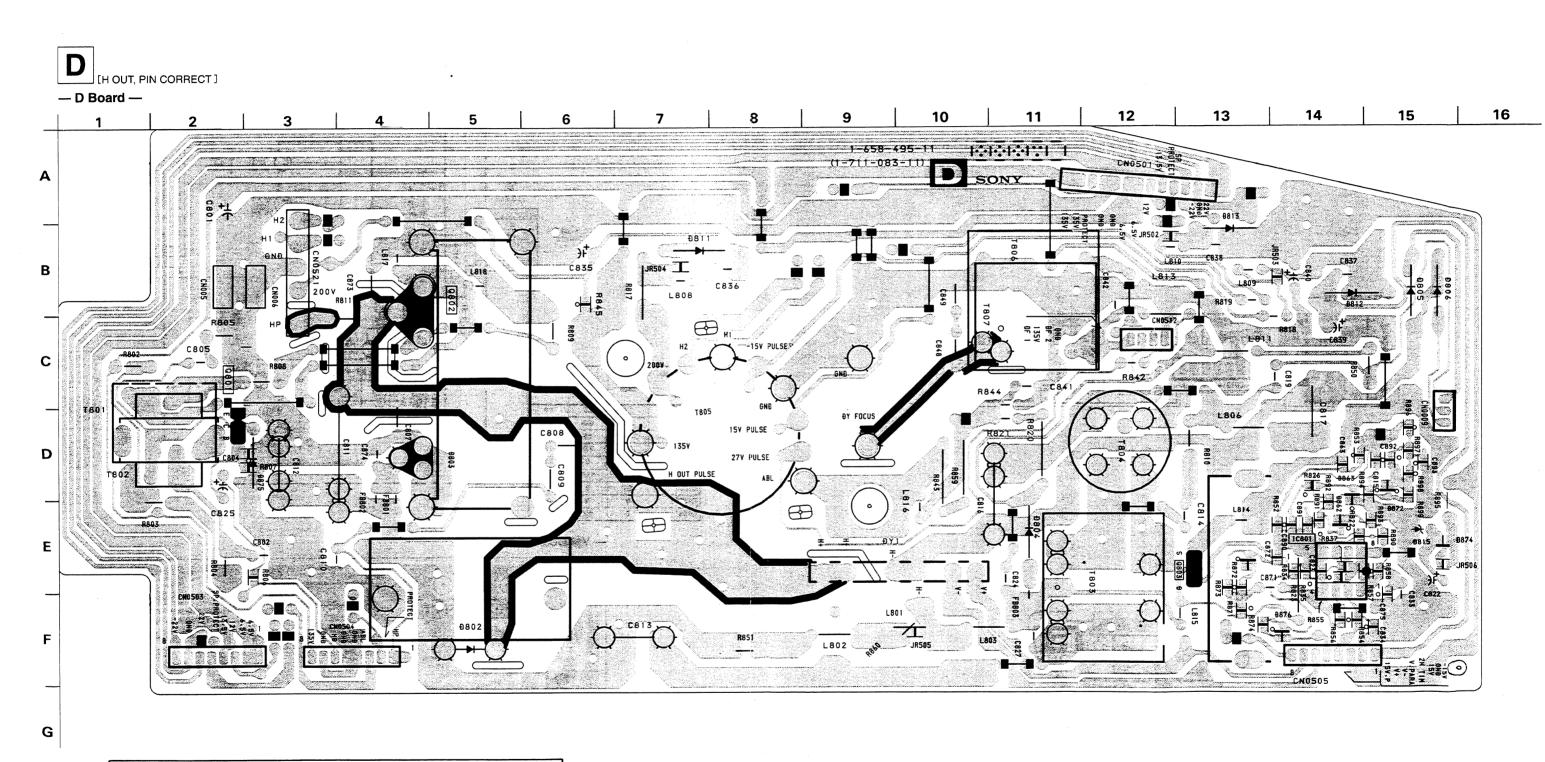


(B)	(C)	(E) Emitter
Dase	Collector	Emiller
-1.3	84.5	-0.1
-86	-0.1	-85
-84.5	-84.8	-85
-85.0	-84.3	-85
13.3	0	10.7
0.4	13.2	0.2
13.2	0	13.2
0	13.5	-0.1
5.6	1.8	28.0
-0.8	22.6	-84.0
9.2	-0.1	0
13.2	0.4	13.2
-85.2	-85.0	-84.0
-0.1	13.3	-0.1
	Base -1.3 -86 -84.5 -85.0 13.3 0.4 13.2 0 5.6 -0.8 9.2 13.2 -85.2	Base Collector -1.3 84.5 -86 -0.1 -84.5 -84.8 -85.0 -84.3 13.3 0 0.4 13.2 13.2 0 0 13.5 -5.6 1.8 -0.8 22.6 9.2 -0.1 13.2 0.4 -85.2 -85.0



G BOA	RD
	С
IC601 IC602	G-5 E-5
TRAN	SISTOR
Q601 Q602 Q603 Q604 Q605 Q606 Q607 Q608 Q610 Q611 Q612 Q613 Q614 Q615 Q616 Q617	B-5 A-3 A-3 F-5 G-4 G-7 A-6 A-7 F-4 A-6 F-5 F-6
DIC	DDE
D601 D602 D603 D605 D607 D608 D609 D610 D612 D613 D614 D615 D616 D617 D618 D619 D620 D621 D622 D623 D624 D625 D626 D627 D628 D630 D631 D633	C-7 G-8 F-7 C-2 D-3 E-3 F-4 G-5 A-5 A-5 B-4 B-3 E-2 A-5 A-5 B-4 B-4 F-4 E-3 E-4 F-4 F-4





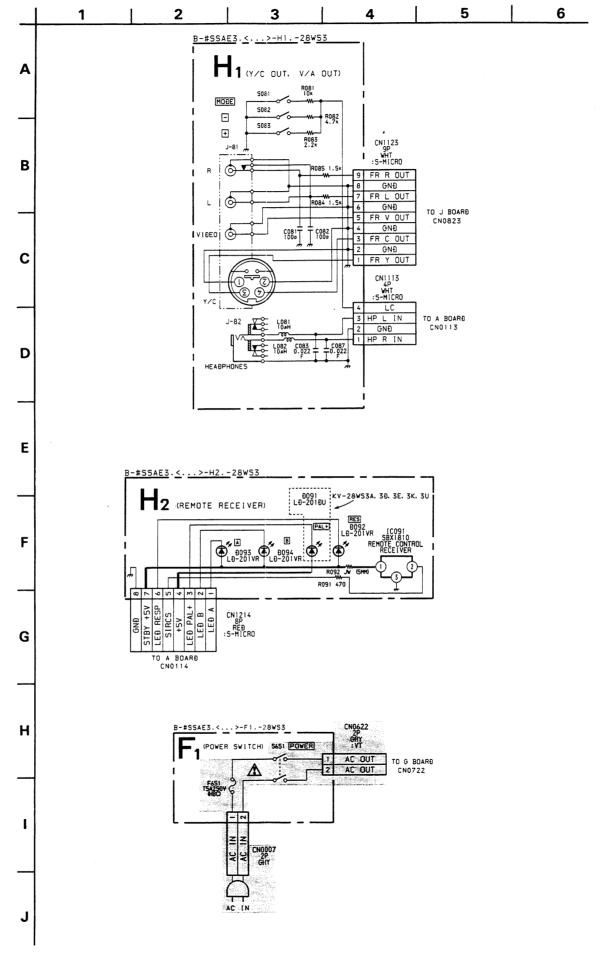


NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

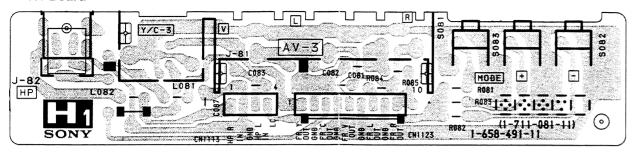
D BOARD

1	С		
IC801	E-14		
TRANS	SISTOR		
Q801 Q802 Q803	C-2 B-5 E-13		
DIODE			
D802 D803 D804 D805 D806 D811 D812 D813 D815 D872	F-5 D-5 E-11 B-15 B-15 B-7 B-14 A-13 E-15 E-15		

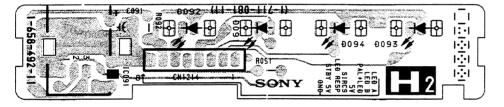




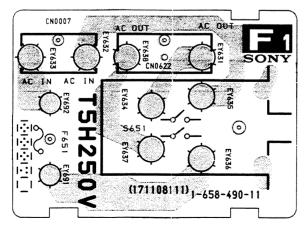
- H1 Board -

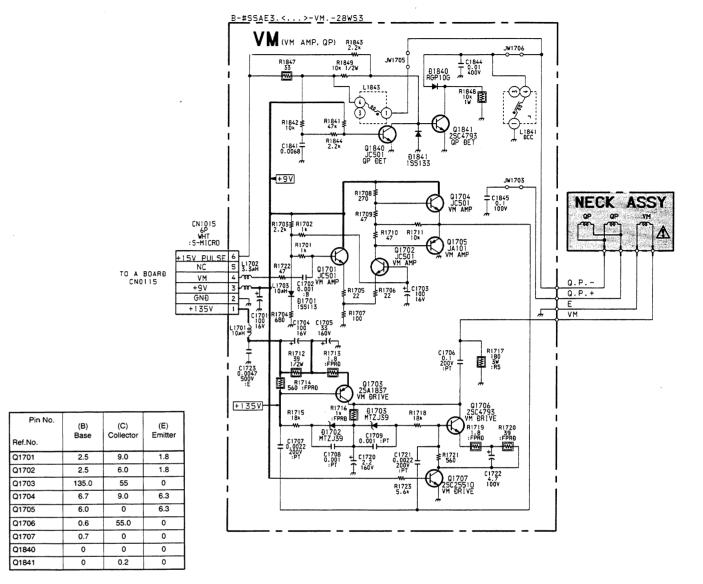


- H2 Board -

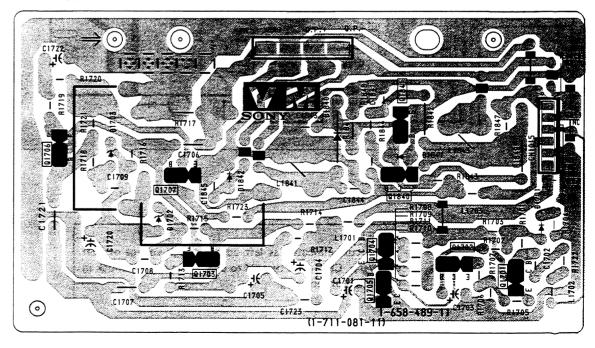


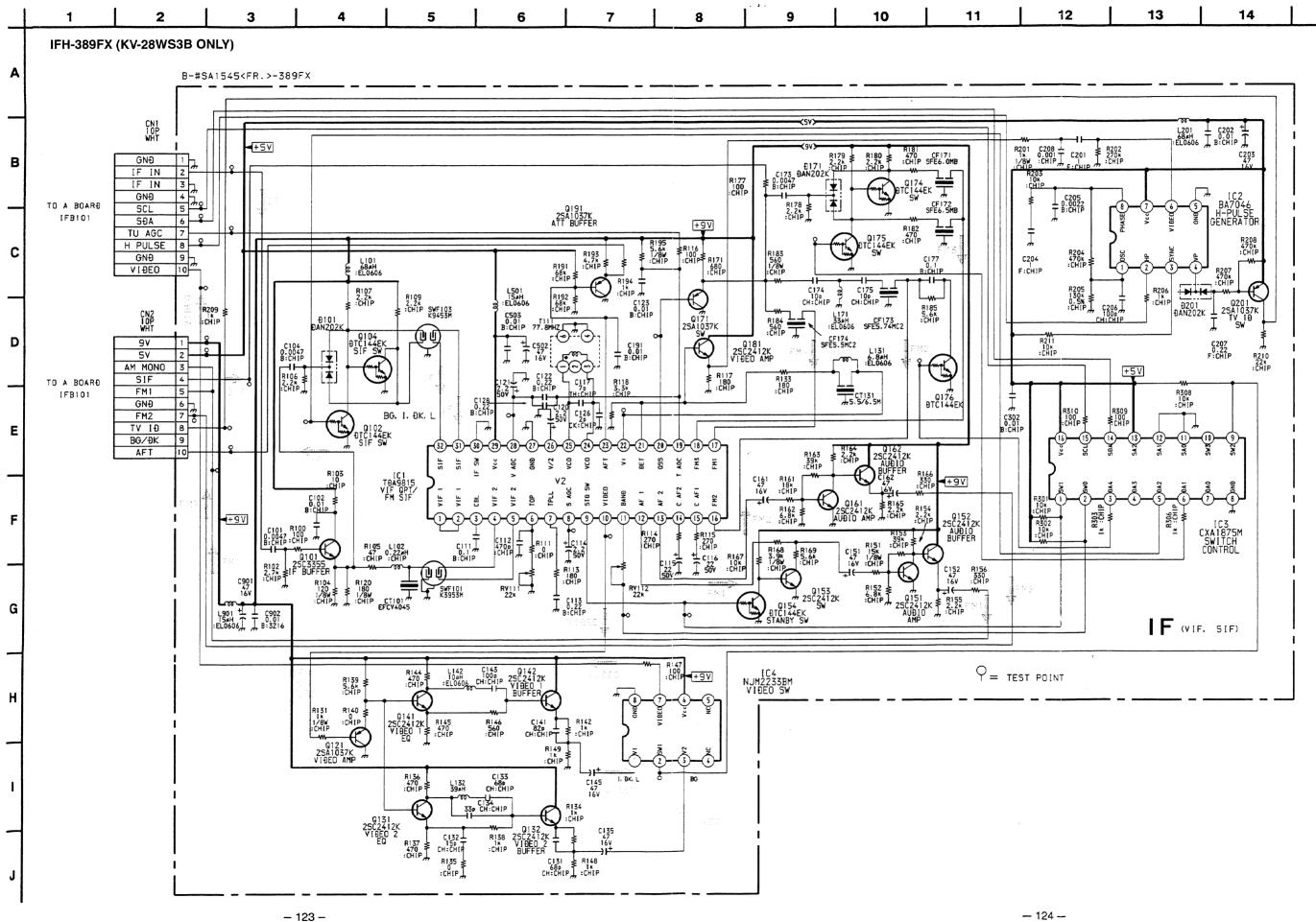
- F1 Board -





- VM Board -

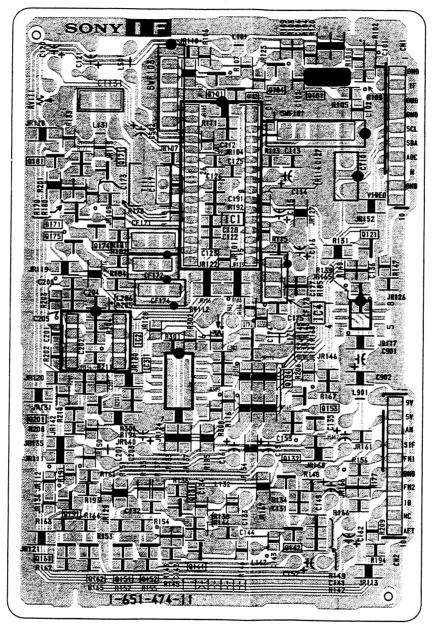




15

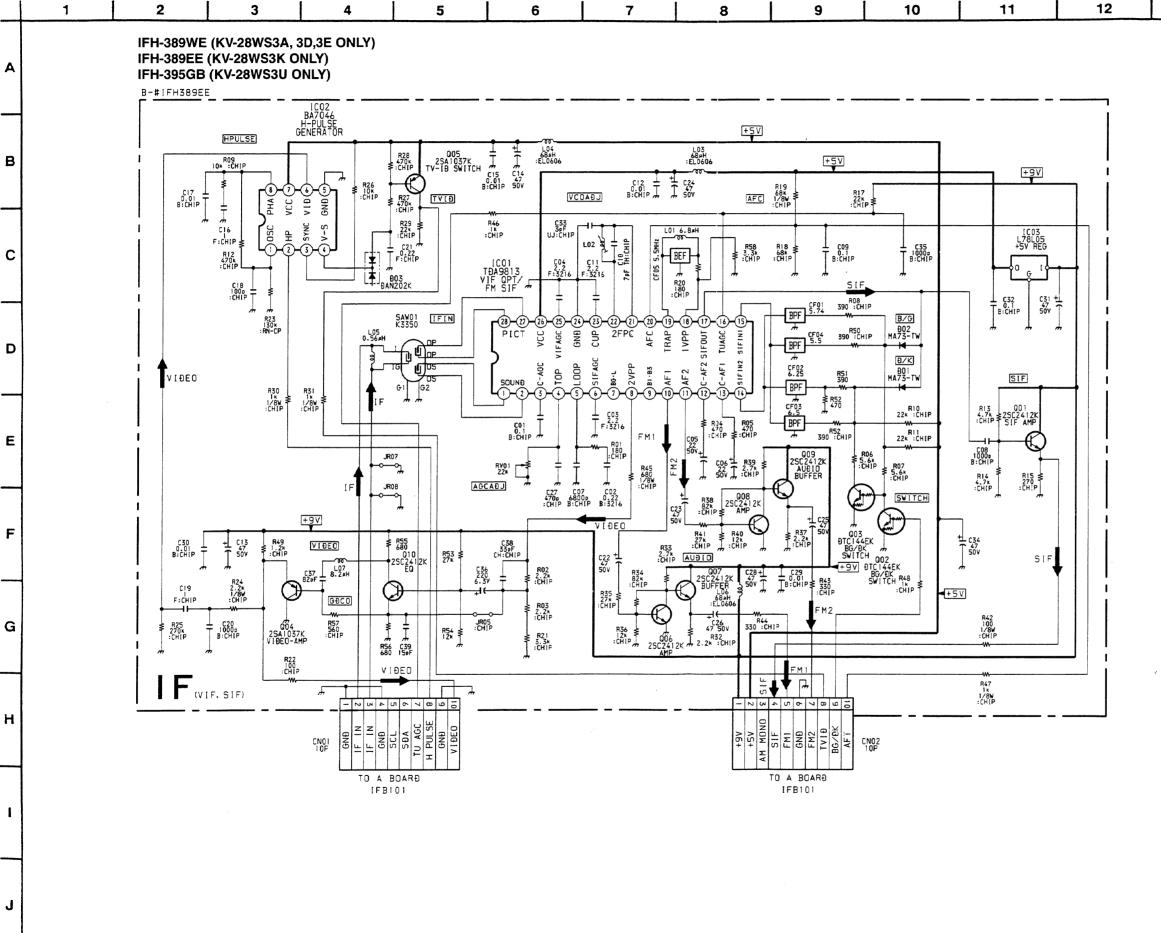


— IF Board — (KV-28WS3B ONLY)



15

KV-2



IF BOARD * MARK

14

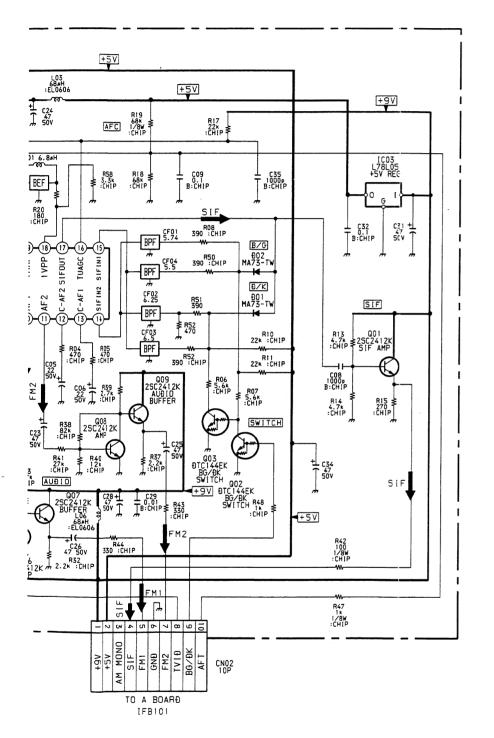
13

Model	28WS3A	28WS3D	28WS3E	28WS3K	1
Ref. No.			ļ		+
C23	47MF 50V	47MF 50V	47MF 50V	47MF 50V	4
C25	47MF 50V	47MF 50V	47MF 50V	47MF 50V	4
C36				220MF 6.3V	+
C37				82PF	+
C38	27PF	27PF	27PF	33PF	+
C39		_	-	15PF	4
CF01	5.74MHz	5.74MHz	5.74MHz	5.74MHz	4
CF02	-	-	-	6.25MHz	┸
CF03	6.5MHz	6.5MHz	6.5MHz	6.5MHz	┸
CF04	5.5MHz	5.5MHz	5.5MHz	5.5MHz	\perp
CF05	5.5MHz	5. 5 MHz	5.5MHz	5.5MHz	
D01	MA73-TX	MA73-TX	MA73-TX	MA73-TX	Ι
D02	MA73-TX	MA73-TX	MA73-TX	MA73-TX	T
L01	10UH	10UH	10UH	6.8UH	Ι
L07			-	8.2UH	Ι
Q02	DTC144EK	DTC144EK	DTC144EK	DTC144EK	Ι
Q03	DTC144EK	DTC144EK	DTC144EK	DTC144EK	Τ.
Q08	2SC2412K	2SC2412K	2SC2412K	2SC2412K	T
Q09	2SC2412K	2SC2412K	2SC2412K	2SC2412K	1
Q10	_	-	-	2SC2412K	T
JR5	0 : CHIP	0 : CHIP	0 : CHIP	-	十
R06	5.6K	5. 6 K	5.6K	5.6K	十
R07	5.6K	5.6K	5.6K	5.6K	\top
R08	390	390	390	390	+
R10	22K	22K	22K	22K	+
R11	22K	22K	22K	22K	+
R20	220	220	220	180	+
R21	1K	1K	1K	3.3K	+
R37	2.2K	2.2K	2.2K	2.2K	+
R38	82K	82K	82K	82K	+
R39	2.7K	2.7K	2.7K	2.7K	十
R40	12K	12K	12K	12K	+
R41	27K	27K	27K	27K	+
R43	330	330	330	330	+
R45	1K	1K	1K	680	+
R48	1K	1K	1K	1K	十
R51				390	+
R52	390	390	390	390	+
R53				27K	+
R54				12K	+
R55				680	┿
R56				680	+
R57	0 : CHIP	0 : CHIP	0 : CHIP	560	+
R59	U:CHIP	U:CHIP	U:CHIP	470	+
R60				4/0	+
	-	-	-		+
R61	100	100	100		+
SAW01	K3350	K3350	K3350	K3350	

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KV-28WS3



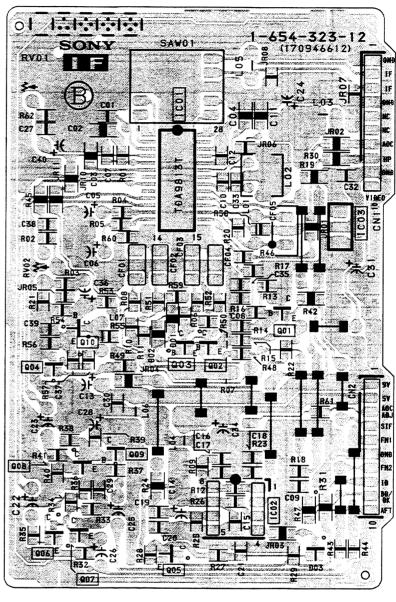


IF BOARD * MARK

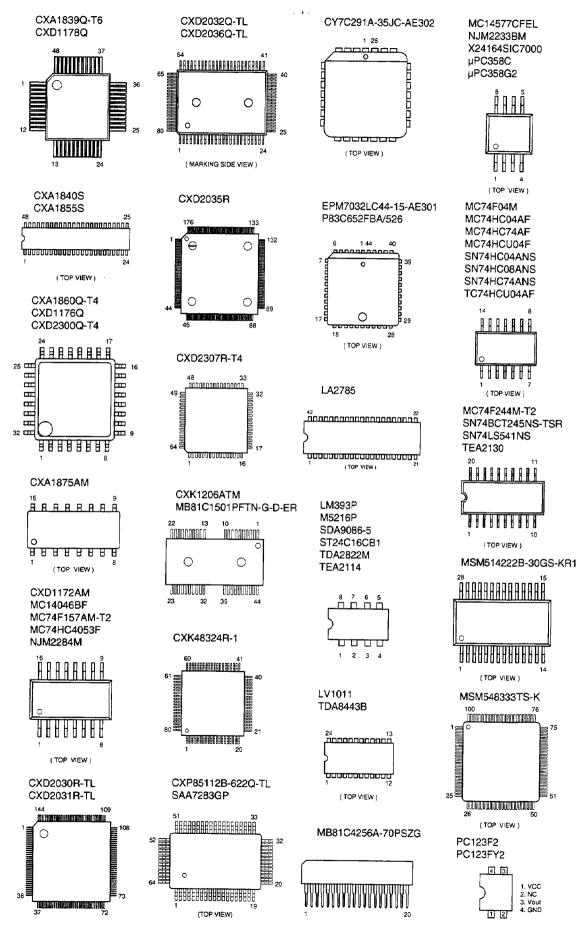
Model	28WS3A	28WS3D	28WS3E	28WS3K	28WS3U
Ref. No.	47MF 50V	47145 601			
C25	47MF 50V	47MF 50V	47MF 50V	47MF 50V	
C36	4/MF 50V	47MF 50V	47MF 50V	47MF 50V	
C36				220MF 6.3V	
C37	27PF	27PF		82PF	
			27PF	33PF	47PF
C39			-	: 15PF	
CF01	5.74MHz	5.74MHz	5.74MHz	5.74MHz	
CF02	-	-	-	6.25MHz	-
CF03	6.5MHz	6.5MHz	6.5MHz	6.5MHz	-
CF04	5.5MHz	5.5MHz	5.5MHz	5.5MHz	6.0MHz
CF05	5.5MHz	5.5MHz	5.5MHz	5.5MHz	6.0MHz
D01	MA73-TX	MA73-TX	MA73-TX	MA73-TX	
D02	MA73-TX	MA73-TX	MA73-TX	MA73-TX	0 : CHIP
L01	10UH	10UH	10UH	6.8UH	8.2UH
L07		-	-	8.2UH	
Q02	DTC144EK	DTC144EK	DTC144EK	DTC144EK	-
Q03	DTC144EK	DTC144EK	DTC144EK	CTC144EK	-
Q08	2SC2412K	2SC2412K	2SC2412K	2SC2412K	-
Q09	2SC2412K	2SC2412K	2SC2412K	2SC2412K	-
Q10		-	-	2SC2412K	-
JR5	0 : CHIP	0 : CHIP	0 : CHIP	-	0 : CHIP
R06	5.6K	5.6K	5.6K	5.6K	-
R07	5.6K	5.6K	5.6K	5.6K	-
R08	390	390	390	390	-
R10	22K	22K	22K	22K	-
R11	22K	22K	22K	22K	
R20	220	220	220	180	180
R21	1K	1K	1K	3.3K	1.8K
R37	2.2K	2.2K	2.2K	2.2K	-
R38	82K	82K	82K	82K	-
R39	2.7K	2.7K	2.7K	2.7K	_
R40	12K	12K	12K	12K	
R41	27K	27K	27K	27K	_
R43	330	330	330	330	
R45	1K	1K	1K	680	1K
R48	1K	1K	1K	1K	-
R51		-	_	390	
R52	390	390	390	390	
353		_	-	27K	
354	_			12K	
	<u>_</u>		_	680	
355				680	
	_	- 1		. ~~ 1	-
356				560	U · CHID
R55 R56 R57	0 : CHIP	0 : CHIP	0 : CHIP	560	0 : CHIP
R56 R57	0 : CHIP -	0 : CHIP -	0 : CHIP -	470	
356	0 : CHIP	0 : CHIP	0 : CHIP		



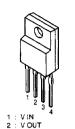
— IF Board — (KV-28WS3A, 3D, 3E, 3K, 3U ONLY)



5-4. SEMICONDUCTORS

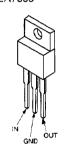


PQ05RF21 PQ12RF21

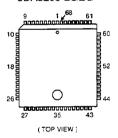


ON/OFF CONTROL

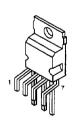
PQ09RE11 TEA7605



SDA30C163-2GEG SDA5273P-C26-GEG SDA9205-2GEG



STV9379



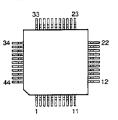
TDA4665T-T



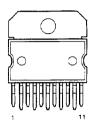
TDA6622-5



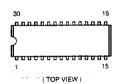
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TDA7265



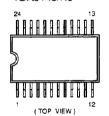
TDA7317



TDA8395T/N2



TDA9145/N3



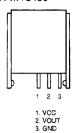
TDA9160A



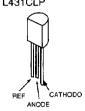
TDA9813T/V3 TDA9814T/V3



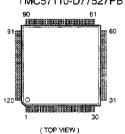
TFMY5400



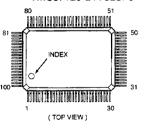
TL431CLP



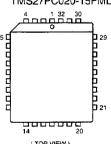
TMC57110-D77527PB



TMC57120-D77523PJ



TMS27PC020-15FML



(TOP VIEW)

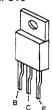
DTA114EK DTC114EK DTC124EKA-T146 DTC144EKA-T146 2SA1037K 2SA1162-G 2SC2412K 2SC2412K-QR



DTA144ESA DTC144ESA



IRF610



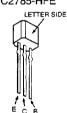
JA101 JC501 2SA1207

2SA1837

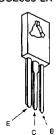
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2SC2603-F 2SC2785-HFE

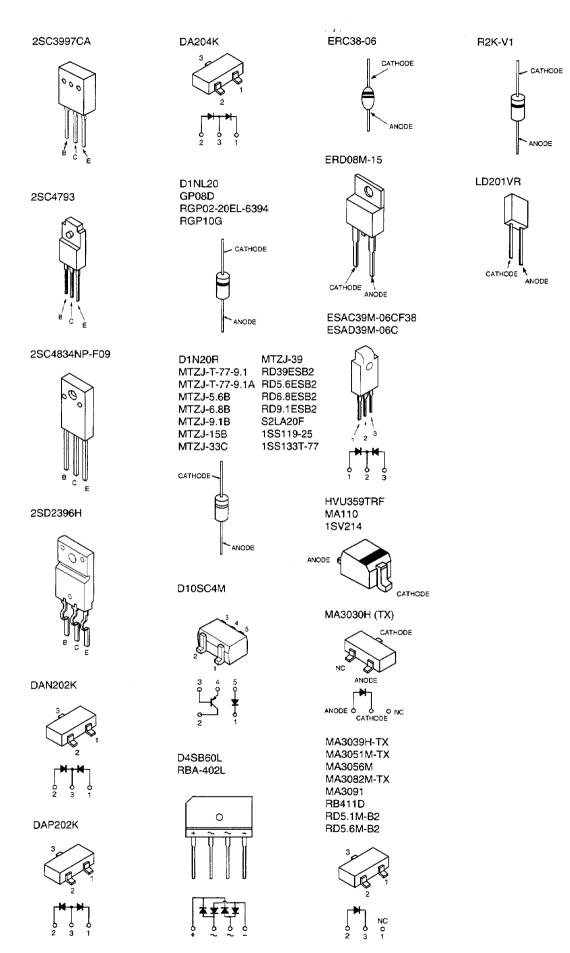


2SC2661 2SC2688-LK



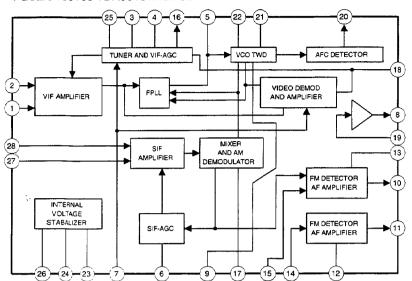
2SC3779C,D-AA

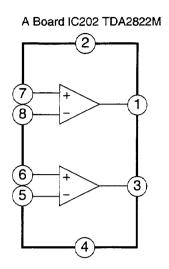




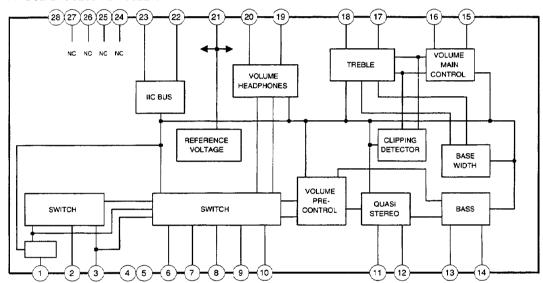
IC BLOCK DIAGRAMS



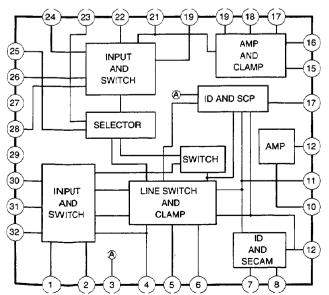




A1 Board IC3203 TDA6622-5



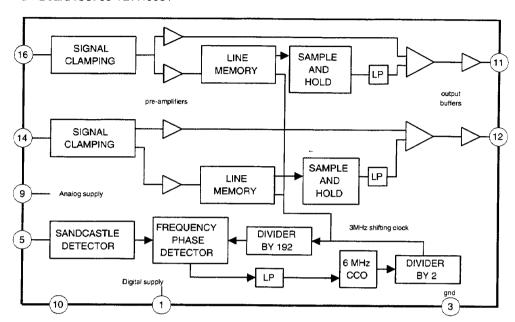
B1 Board IC1302 CXA1860Q

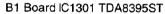


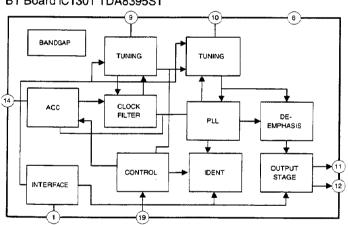
A Board IC1501 STV9379S FLYBACK GENERATOR POWER AMPLIFIER THERMAL PROTECTION

— 132 **—**

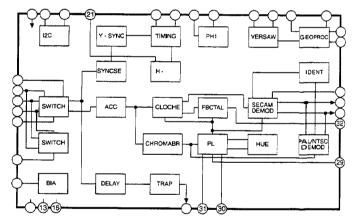
B1 Board IC3709 TDA4665T



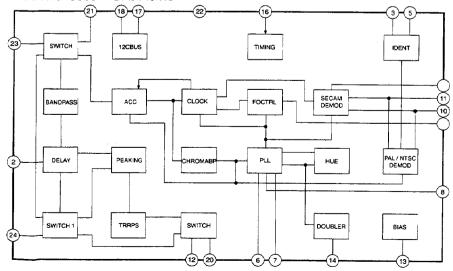




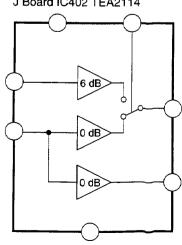
B1 Board IC3713 TDA9160A



B2 Board IC9001 TDA9145/N3



J Board IC402 TEA2114



SECTION 6

EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items

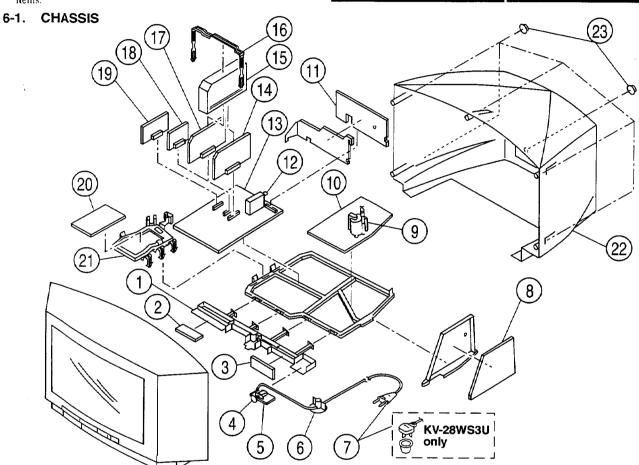
The components identified by shading and marked ? are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque $\hat{\mathcal{H}}$, sont critiques pour la securite.

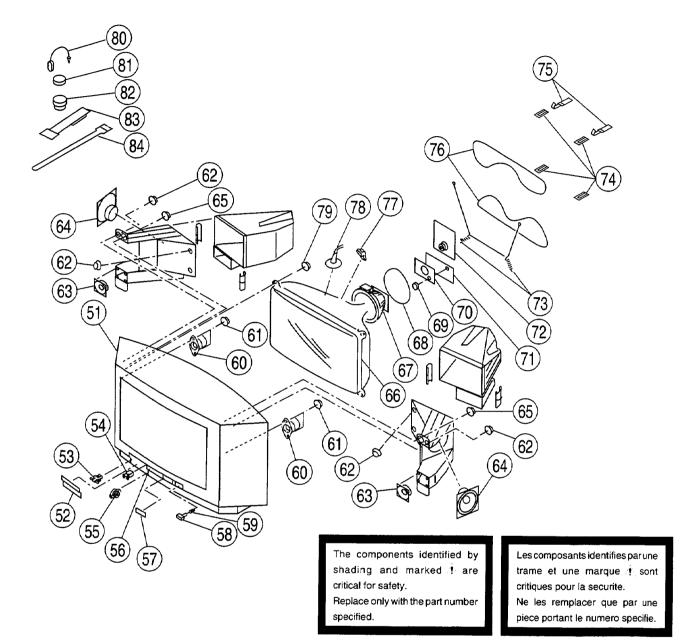
Ne les remplacer que par une

piece portant le numero specifie.



REF NO	PART NO	DESCRIPTION REMARK	REF NO	PART NO	DESCRIPTION REMARK
1	*4-050-003-01	BRACKET, H	13	*A-1632-296-A	A BOARD, COMPLETE (KV-28WS3A/28WS3D)
2	*A-1646-098-A	H1 BOARD, COMPLETE		*A-1632-337-A	A BOARD, COMPLETE (KV-28WS3B)
3	*A-1646-099-A	H2 BOARD, COMPLETE (KV-28WS3A/28WS3D		*A-1632-339-A	A BOARD, COMPLETE (KV-28WS3E)
		/28WS3E/28WS3K/28WS3U)		*A-1632-340-A	A BOARD, COMPLETE (KV-28WS3K)
	*A-1646-108-A	H2 BOARD, COMPLETE (KV-28WS3B)		*A-1632-336-A	A BOARD, COMPLETE (KV-28WS3U)
4	∕r 1-571-433-21	SWITCH, PUSH (AC POWER)	14	*A-1620-063-A	B1 BOARD, COMPLETE (KV-28WS3A/28WS3D
5	*A-1624-052-A	F1 BOARD, COMPLETE		1020 003 11	/28WS3E/28WS3K/28WS3U)
6	*4-202-531-01	AC CORD, LOCK (SC)		*A-1620-067-A	B1 BOARD, COMPLETE (KV-28WS3B)
7.	Æ 1-751-680-11	CORD, POWER (WITH NOISE FILTER)	15	*4-050-639-01	CASE, SHIELD (MAIN) (KV-28WS3A/28WS3D
		2.5A/250V (KV-28WS3A/28WS3B/28WS3D	-3	1 030 033 01	/28WS3E/28WS3K/28WS3U)
		/28WS3E/28WS3K)	16	*4-050-641-01	SUPPORTER (2), PCB (KV-28WS3A/28WS3D
	₫ 1-590-762-11	CORD, POWER (WITH PLUG)	10	4-030-041-01	/28WS3E/28WS3K/28WS3U)
	23.7 2 370 702 22	2.5A/250V (KV-28WS3U)	17	*A-1626-004-A	Q BOARD, COMPLETE (KV-28WS3A/28WS3D
8	*A-1636-009-A	G BOARD, COMPLETE	1 1	"A-1020-004-A	
ğ	£ 1-453-187-11	TRANSFORMER ASSY, FLYBACK	18	*A-1620-068-A	/28WS3E/28WS3K/28WS3U)
•	777 T-400.TO. TI	(NX-2661/U2E)			B2 BOARD, COMPLETE (KV-28WS3B)
10	*A-1640-182-A	D BOARD, COMPLETE	20	*A-1630-368-A	A1 BOARD, COMPLETE
11	*A-1651-073-A	J BOARD, COMPLETE	40	*A-1654-017-A	T BOARD, COMPLETE (KV-28WS3A/28WS3D
12	1-693-315-21	·		45 4684 555 5	/28WS3E/28WS3K)
14	1-093-313-21	TUNER (UV1316) (KV-28WS3A/28WS3B		*A-1654-020-A	T BOARD, COMPLETE (KV-28WS3B)
	4 (02 214 01	/28WS3D/28WS3E/28WS3K)		*A-1654-019-A	T BOARD, COMPLETE (KV-28WS3U)
	1-693-314-21	TUNER (U1344) (KV-28WS3U)	21	*4-050-453-01	BRACKET, T
			22	4-050-253-01	COVER, REAR
			23	4-039-358-01	SCREW (4X16), (+) BV TAPPING

6-2. PICTURE TUBE



REF NO	PART NO	DESCRIPTION REMA	RK REF NO	PART NO	DESCRIPTION	REMARK
51	4-050-243-01	BEZNET	67	A 8-451-433-11	DEFLECTION YORE (Y28GICM)	
52	4-202-555-01	SHAFT, DOOR	68	1-452-724-11	COIL, NA ROTATION (RT-165)	
53	4-050-001-01	DOOR, CONTROL	69	4-039-356-11	SCREW (3X12), (+) BV TAPPING	
		(KV-28WS3A/28WS3D/28WS		A 8-453-005-31	NECK ASSY (NA297-M3)	
	4-050-001-41	DOOR, CONTROL (KV-28WS3B)	71	*A-1644-064-A	VM BOARD, COMPLETE	
	4-050-001-21	DOOR, CONTROL (KV-28WS3E/28WS3U)	72	*A-1638-070-A	C BOARD, COMPLETE	
54	4-392-036-01	CATCHER, PUSH	73	4-200-433-01	SPRING, EXTENSION	
55	4-045-250-01	DAMPER	74	4-202-463-01	CLIP, DGC (25")	
56	4-050-002-01	PLATE, ORNAMENTAL	75	*4-050-252-01	SPACER, DGC	
57	4-050-000-01	WINDOW, ORNAMENT	76	1-409-646-11	COIL, DEGAUSSEING	
58	4-049-999-01	BUTTON, POWER	77	3-704-495-01	SPACER, DY	
59	4-202-964-01	SPRING	78	1-540-006-22	CAP ASSY, HIGH-VOLTAGE	
60	1-504-418-21	SPEAKER (5CM)	79	4-036-188-01	SCREW (M), PT	
61	4-039-355-11	SCREW (4X12), (+) BV TAPPING	80	4-308-870-00	CLIP, LEAD WIRE	
62	4-039-358-01	SCREW (4X16), (+) BV TAPPING	81	1-452-032-00	MAGNET, DISK; 10MM Ø	
63	1-505-154-11	SPEAKER (6.5CM)	82	1-452-094-00		a
64	1-505-155-11	SPEAKER (10CM)	83	X-4387-214-1	MAGNET, ROTATABLE DISK; 15MM	W
65	4-302-404-03	SCREW (WASHER HEAD) (+P 4X16)	84	3-701-007-00	PERMALLOY ASSY, CORRECTION	
66	★ 8-737-762-05	PICTURE TUBE (SD-284) (W66LGY010X)		3-101-001-00	BAND, BINDING	

SECTION 7

ELECTRICAL PARTS LIST

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

MF: mF, PF: mmF

 $MMH: mH, \mu H: mH$

• Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

 All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

• All resistors are in ohms

• F: nonflammable

The components identified by shading and marked \hat{m} are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque 👍 sont critiques pour la securite.

Ne les remplacer que par une piece portant le numero specifie.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTIO	<u>DN</u>		REMARK
	*A-1620-063-A	B1 BOARD, COMPLETE	(KV-28WS3A/28WS3D/ 28WS3E/28WS3K/	C319	1-163-038-91	CERAMIC CHIP	0.1MF		25V
		B1 BOARD, COMPLETE	28WS3U)	C320 C321 C322 C323 C324	1-163-038-91 1-163-038-91 1-104-664-11 1-163-038-91 1-163-038-91	CERAMIC CHIP	0.1MF 47MF 0.1MF	20%	25V 25V 25V 25V 25V
C01 C02 C03 C04 C05	1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	25V 25V 25V 25V 25V	C325 C326 C327 C328 C329	1-104-664-11 1-126-933-11 1-126-933-11 1-126-933-11 1-163-038-91	ELECT ELECT ELECT ELECT	47MF 100MF 100MF 100MF	20% 20% 20% 20%	25V 16V 16V 16V 25V
C06 C07 C08 C09 C10	1-163-038-91 1-104-664-11 1-163-038-91 1-163-038-91 1-163-038-91	CERAMIC CHIP 0.1MF ELECT 47MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	25V 20% 25V 25V 25V 25V 25V	C330 C331 C332 C333 C334	1-163-038-91 1-163-038-91 1-163-137-00 1-163-137-00 1-163-129-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1MF 680PF 680PF	5% 5% 5%	25V 25V 50V 50V 50V
C11 C12 C14 C15 C16	1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	25v 25v 25v 25v 25v 25v	C335 C336 C337 C338 C339	1-163-099-00 1-163-096-00 1-163-031-11 1-104-664-11 1-126-964-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP ELECT ELECT	13PF	5% 5% 20% 20%	50V 50V 50V 25V 50V
C17 C18 C19 C20 C21	1-163-038-91 1-163-038-91 1-163-038-91 1-163-124-00 1-163-121-00	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 200PF CERAMIC CHIP 150PF	25V 25V 25V 25V 5% 50V 5% 50V	C340 C341 C342 C343 C344	1-163-038-91 1-163-038-91 1-126-964-11 1-126-964-11 1-163-251-11	CERAMIC CHIP CERAMIC CHIP ELECT ELECT CERAMIC CHIP	0.1MF 10MF 10MF	20% 20% 5%	25V 25V 50V 50V 50V
C22 C23 C301 C302 C303	1-104-664-11 1-163-038-91 1-163-111-00 1-163-031-11 1-163-038-91	ELECT 47MF CERAMIC CHIP 0.1MF CERAMIC CHIP 56PF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.1MF	20% 25V 25V 5% 50V 50V 25V	C501 C502 C503 C504 C505	1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1MF 0.1MF 0.1MF		25V 25V 25V 25V 25V
C304 C305 C306 C307 C308	1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	25V 25V 25V 25V 25V 25V	C506 C507 C508 C509 C510	1-163-038-91 1-104-664-11 1-163-038-91 1-163-038-91 1-163-038-91		47MF 0.1MF 0.1MF	20%	25V 25V 25V 25V 25V
C309 C310 C311 C312 C313	1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91 1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	25V 25V 25V 25V 25V	C511 C512 C513 C514	1-163-038-91 1-163-037-11 1-163-038-91 1-163-017-00	CERAMIC CHIP (KV-28WS3A/28	0.022MF WS3D/28WS3E 0.1MF	10% /28WS3K 10%	25V 25V (/28WS3 U) 25V 50V
C315 C316 C317 C318	1-163-031-11 1-163-119-00 1-163-031-11 1-163-038-91	CERAMIC CHIP 0.01MF CERAMIC CHIP 120PF CERAMIC CHIP 0.01MF CERAMIC CHIP 0.1MF	5% 5 0 V	C515 C516 C517 C518	1-163-038-91 1-162-568-11 1-163-038-91 1-163-038-91	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.33MF 0.1MF	10%	25V 16V 25V 25V

-		
	B	1

										1	DI
	REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTI	ON		REMARK
	C519	1-124-902-00	ELECT 0.47MF	20%	50 v	C558	1-163-111-00	CERAMIC CHIE	56PF	5%	50 v
	C520	1-163-038-91	CERAMIC CHIP 0.1MF		25V	C559 C560	1-163-111-00 1-163-038-91	CERAMIC CHIP	9 56PF 9 0.1MF	5%	50V 25V
	C522	1-163-038-91	CERAMIC CHIP 0.1MF	(1	XV-28WS3B) 25V	C561		CERAMIC CHIP			25V
	C525	1-163-038-91	CERAMIC CHIP 0.1MF	•	(V-28WS3B) 25V	C563 C564	1-104-664-11	ELECT CERAMIC CHIP	47MF 0.1MF	20%	25V 25V
				1)	(V-28WS3B)	C1301	1-163-031-11	(KV-28WS3A/2 CERAMIC CHIP	8WS3D/28WS3E 0.01MF	/28WS3	K/28WS3U) 50V
	C527	1-164-326-91	CERAMIC CHIP 0.47MF	(F	25V (V-28WS3B)	C1302	1-126-964-11		10MF	20%	50V
	C528	1-163-038-91	CERAMIC CHIP 0.1MF	(18	25V (V-28WS3B)	C1303 C1306	1-163-038-91 1-126-964-11	CERAMIC CHIP	0.1MF 10MF	20%	25V 50V
	C530	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V (V-28WS3B)	C1307 C1308	1-126-964-11 1-126-964-11	ELECT	10MF 10MF	20% 20% 20%	50V 50V 50V
	C531	1-104-664-11	ELECT 47MF	20%	25V	C1309	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
	C532	1-163-038-91	CERAMIC CHIP 0.1MF	(K	W-28WS3B) 25V	C1310 C1311	1-163-141-00 1-163-038-91	CERAMIC CHIP CERAMIC CHIP	0.001MF 0.1MF	5%	50V 25V
	C533	1-163-038-91	CERAMIC CHIP 0.1MF	(K	(V-28WS3B) 25V	C1313 C1314	1-163-125-00 1-126-964-11	CERAMIC CHIP	220PF 10MF	5% 20%	50V 50V
				(K	V-28WS3B)					20%	
	C534	1-163-038-91	CERAMIC CHIP 0.1MF		25V	C1315 C1316	1-164-004-11	CERAMIC CHIP CERAMIC CHIP	0.1MF	10%	50 V 25 V
	C535	1-164-004-91	CERAMIC CHIP 0.1MF	10%	V-28WS3B) 25V	C1317 C1318	1-164-232-11	CERAMIC CHIP	0.01MF	10% 10%	16 V 50 V
		1-163-037-11	(KV-28WS3A/28WS3D/28 CERAMIC CHIP 0.022MF		K/28WS3U) 25V	C1319	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50 V
				(K	V-28WS3B)	C1320	1-164-004-91	CERAMIC CHIP (KV-28WS3A/28		10%	25V
	C536	1-163-038-91	CERAMIC CHIP 0.1MF	/ K *	25V V-28WS3B)		1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
	C537	1-163-038-91	CERAMIC CHIP 0.1MF		25V V-28WS3B)	C1321	1-163-113-00	CERAMIC CHIP	68PF	5%	V-28WS3B) 50V
	C538	1-104-664-11	ELECT 47MF	20%	25V	C1322	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
	0530			(1)	V-28WS3B)	C1323 C1324	1-163-037-11	CERAMIC CHIP CERAMIC CHIP	0.022MF	5% 10%	50V 25V
	C539		CERAMIC CHIP 0.1MF		25V V-28WS3B)	C1347 C1348	1-163-038-91 1-163-038-91	CERAMIC CHIP	0.1MF 0.1MF		25V 25V
	C540	1-104-664-11	ELECT 47MF	20% (K)	25V V-28WS3B)	C1349	1-163-101-00			5%	5 0 V
	C541	1-104-664-11	ELECT 47MF	20% (K)	25V V-28WS3B)	C1350 C1351	1-164-232-11 1-163-141-00	CERAMIC CHIP	0.01MF	10% 5%	50V 50V
	C542	1-163-038-91	CERAMIC CHIP 0.1MF	,,,,,	25V	C1352 C1431	1-163-038-91 1-163-038-91	CERAMIC CHIP	0.1MF	20	25V
	_		CERAMIC CHIP 0.1MF	73)	7-28WS3B)	1					25V
		1-104-664-11		20%	25V 25V	C1436	1-104-664-11 1-163-038-91	CERAMIC CHIP	47MF 0.1MF	20%	25V 25V
				(K)	/-28WS3B)	C1443 C3700	1-104-664-11 1-104-664-11	ELECT	47MF	20% 20%	25 V 25 V
			CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF		25V 25V	C3701	1-163-038-91	CERAMIC CHIP	0.1MF		25 V
	C547	1-126-924-11	ELECT 330MF	20%	107	C3702	1-163-038-91	CERAMIC CHIP	0.1MF		25 V
			CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF		25V 25V	C3703 C3707	1-163-038-91	CERAMIC CHIP	0.1MF		25V
	0313	1 103 030 31	(KV-28WS3A/28WS3D/28W	S3E/28WS3K		C3707	1-163-038-91 1-163-038-91	CERAMIC CHIP	0.1MF 0.1MF		25V 25V
	C550	1-163-038-91	CERAMIC CHIP 0.1MF		25V	C3709	1-163-038-91				25 v
	C551	1-163-038-91	(KV-28WS3A/28WS3D/28W CERAMIC CHIP 0.1MF	S3E/28WS3K	(/28WS3U) 25V	C3710 C3711	1-163-038-91 1-126-965-11	CERAMIC CHIP			25V
			(KV-28WS3A/28WS3D/28W	S3E/28WS3K	(/28WS3U)	C3712	1-163-038-91	CERAMIC CHIP	0.1MF	20%	50V 25V
,	C552	1-102-028-31	CERAMIC CHIP 0.1MF (KV-28WS3A/28WS3D/28W	S3E/28WS3K	25V (/28WS3U)	C3713 C3714	1-163-038-91 1-163-038-91				25V 25V
			CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF		25V 25V	C3715 C3716	1-104-664-11 1-163-038-91	ELECT	47MF 2	20%	25V
			(KV-28WS3A/28WS3D/28W	S3E/28WS3K	/28WS3U)	C3717	1-163-038-91	CERAMIC CHIP	0.1MF		25V 25V
(C555	1-163-038-91	CERAMIC CHIP 0.1MF (KV-28WS3A/28WS3D/28W	S3E/28WS3K	25V /28W\$3U)	C3718 C3719	1-163-038-91	CERAMIC CHIP (0.1MF	10%	25V 50V
			CERAMIC CHIP 0.1MF CERAMIC CHIP 56PF	5%	25V 50V	C3720 C3721	1-163-038-91 1-163-038-91	CERAMIC CHIP (0.1MF 0.1MF		25V 25V



DEE NO	DADTNO	DECCOIDTION		DEMADY	REF.NO.	DADTNO	DECCRIPTION:	DEMARY
REF.NO.	PART NO.	DESCRIPTION	İ	REMARK		PART NO.	DESCRIPTION	REMARK
C3722 C3723 C3724	1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF		25V 25V 25V	C3778 C3779 C3782		(KV-28WS3A/28WS3D/28WS3E/28 CERAMIC CHIP 0.1MF	WS3K/28WS3U) 25V
C3725 C3726	1-163-038-91 1-104-664-11	CERAMIC CHIP 0.1MF ELECT 47MF	20%	25V 25V	C3783		CERAMIC CHIP 0.0012MF 5% CERAMIC CHIP 0.0022MF 10	
C3727 C3730 C3731	1-126-964-11 1-126-964-11 1-126-049-91	ELECT 10MF ELECT 10MF	20% 20% 20%	50V 50V 50V	C3790		CERAMIC CHIP 100PF 5% (KV-28WS3A/28WS3D/28WS3E/28 CERAMIC CHIP 220PF 5%	WS3K/28WS3U)
C3732 C3733		CERANIC CHIP 0.1MF CERANIC CHIP 0.1MF		25V 25V		< CON	NECTOR >	(NV-20853D)
	1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF		25V 25V 25V	CN0301		SOCKET, CONNECTOR 30P	
C3736	1-104-664-11		20%	25V 25V	CN0301		(KV-28WS3A/28WS3D/28WS3E/28U CONNECTOR, BOARD TO BOARD 5	
C3737 C3738		CERAMIC CHIP 1MF CERAMIC CHIP 0.1MF		16V 25V		< DIO	•	
C3739	1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF		25V 25V	D01			
C3741		CERAMIC CHIP 0.1MF		25V 25V	D301 D302	8-719-031-68	DIODE DAP202K DIODE HVU359TRF DIODE HVU359TRF	
C3743 C3744	1-163-038-91 1-126-965-11	CERAMIC CHIP 0.1MF ELECT 22MF	20%	25V 50V	D303 D1301	8-719-404-46 8-719-404-46	DIODE MA110	
C3745	1-163-038-91	CERAMIC CHIP 0.1MF	20.0	25V				
C3747		CERAMIC CHIP 0.1MF		25V 25V	D1302 D1304	8-719-914-43	DIODE DAN202K DIODE DAN202K	
		CERAMIC CHIP 22PF	5%	50V	D1309 D3700		DIODE DAN202K DIODE RD5.6M-B2	
		CERAMIC CHIP 0.1MF		25V 25V	D3701	8-719-031-68	DIODE HVU359TRF	
C3751	1-163-038-91	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.01MF	10%	25V 50V	D3702 D3703	8-719-031-68 8-719-975-40	DIODE HVU359TRF DIODE RB411D (KV-28WS3A/28WS3D/28WS3E/28V	WS3K/28WS3Π)
		CERAMIC CHIP 0.001M CERAMIC CHIP 0.001M		50V 50V		, ppp	RITE BEAD >	
C3755	1-164-232-11	CERAMIC CHIP 0.01MF CERAMIC CHIP 0.1MF	10%	50V 25V	FB3700			
		CERAMIC CHIP 0.1MF		25 V	100/00		INDUCTOR, FERRITE BEAD	
C3759	1-163-038-91	CERAMIC CHIP 0.1MF		25V	0.4		APSULATED FILTER >	
C3760	1-164-005-11	(KV-28WS3A/28WS3D/2 CERAMIC CHIP 0.47MF		16 V	FL01 FL02	1-233-438-11	FILTER, LOW PASS FILTER, LOW PASS	
C3761	1-164-038-11	(KV-28WS3A/28WS3D/28 CERAMIC 2PF	8WS3E/28WS3K, 0.25PF		FL03 FL301	1-233-438-11 1-236-620-11	FILTER, LOW PASS FILTER, LOW PASS	
		(KV-28WS3A/28WS3D/2	8WS3E/28WS3K,	/28WS3U)	FL302	1-236-620-11	FILTER, LOW PASS	
		CERAMIC CHIP 0.1MF CERAMIC CHIP 0.0047		25V 50V	FL352 FL353		FILTER, LOW PASS (KV-28WS3B) FILTER, LOW PASS (KV-28WS3B)	
		(KV-28WS3A/28WS3D/28 CERAMIC CHIP 2.2MF			FL355 FL1301	1-233-436-11	FILTER, LOW PASS (KV-28WS3B) FILTER, LOW PASS	
C3700	1-104-303-11	(KV-28WS3A/28WS3D/2	8WS3E/28WS3K,		FL1302		FILTER, LOW PASS	
C3769	1-163-097-00	CERAMIC CHIP 15PF (KV-28WS3A/28WS3D/2	5% 8wc3r/28wc3r	50V /28wg3m)	FL3700 FL3701		FILTER, LOW PASS FILTER, LOW PASS	
C3770	1-164-038-11		0.25PF	50V	FL3702		FILTER, LOW PASS	
C3771	1-104-664-11		20%	25V		< IC	>	
C3772	1-163-037-11	CERAMIC CHIP 0.022MI (KV-28WS3A/28WS3D/2		25V	IC01 IC02	8-752-338- 4 6 8-752-370-87		
C3773	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	ICO4	8-752-365-06	IC CXK48324R-1	
C3774	1-124-903-11	(KV-28WS3A/28WS3D/2) ELECT 1MF (KV-28WS3A/28WS3D/2)	20%	50V	IC05 IC06	8-759-362-96	IC CXK48324R-1 IC MB81C1501PFTN-G-D-ER	
C3775	1-163-038-91	CERAMIC CHIP 0.1MF		25V	IC07 IC301	8-752-357-86	IC CXD2036Q-TL IC CXD2300Q-T4	
C3776	1-163-017-00	(KV-28WS3A/28WS3D/2) CERAMIC CHIP 0.0047i	MF 10%	50V	IC302 IC501	8-759-925-76	IC CXD2030R-TL IC SN74HC08ANS	
C3777	1-163-038-91	(KV-28WS3A/28WS3D/2) CERAMIC CHIP 0.1MF	bws3E/28W S 3K,	/28WS3U) 25V	IC502	8-752-370-85	IC CXD2032Q-TL	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRI	PTION	REMARK
IC503 IC504		IC CXD2307R IC SDA9205-2GEG (KV	_ 10WG3 P /	L3702	1-408-403-00	INDUCTOR	3.3UH	
IC505	8-759-033-43	IC MC74F244M	-20MDJD)	L3703 L3704	1-408-403-00 1-408-403-00		3.3UH 3.3UH	
IC506		IC MC74F244M		L3705	1-408-403-00	INDUCTOR	3.3UH	
IC507		IC SN74HC04ANS		L3706	1-414-253-91		5.6UH	
IC509 IC510		IC MC74F244M IC MC74HC74AF		L3707 L3708	1-408-403-00 1-408-403-00	INDUCTOR INDUCTOR	3.3UH 3.3UH	
IC511	8-759-925-76	IC SN74HC08ANS	BWS3E/28WS3K/28WS3U)			ANSISTOR >		
			BWS3E/28WS3K/28WS3U)	Q01			2SA1162-G	
IC512	8-759-034-91	IC MC74HC74AF (KV-28WS3A/28WS3D/28 IC MC74HC74AF (KV-28WS3A/28WS3D/28 IC TDA8395T/N2 IC CXA1860Q-T4 IC MC74HC04AF IC MB81C1501PFTN-G-I IC MB81C1501PFTN-G-I IC CXD1176Q IC CXD1172AM IC MC14577CF IC MC74HC4053F IC CXD2031R-65846GJ0 IC TDA4665T-T IC SN74HC04ANS	3WS3E/28WS3K/28WS3U)	Q02 003	8-729-216-22 8-729-216-22	TRANSISTOR	2SA1162-G	
IC513	8-759-034-91	IC MC74HC74AF (KV-28WS3A/28WS3D/28	WS3E/28WS3K/28WS3H)	Q04	8-729-216-22 8-729-216-22	TRANSISTOR	2SA1162-G	
IC1301	8-759-368-89	IC TDA8395T/N2	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	203	0 720 216 22			
IC1302	8-752-070-58	IC CXA1860Q-T4		0301	8-729-216-22 8-729-216-22	TRANSISTOR	2SA1162-G 2SA1162-G	
IC1305	8-759-032-11	IC MC74HC04AF		Q302	8-729-216-22	TRANSISTOR	2SA1162-G	
IC3701 IC3702	8-759-362-96	IC MB81C1501PFTN-G-I)-ER	Q303	8-729-216-22	TRANSISTOR	2SA1162-G	
IC3703	8-759-362-96	IC MB81C1501PFTN-G-I)-er)-er	Q304	8-729-216-22			
IC3704	8-752-337-04	TC CXD11760		Q305 Q306	8-729-216-22 8-729-920-74	TRANSISTOR	2SA1162-G	
IC3705	8-752-334-49	IC CXD1170Q		0307	8-729-920-74	TRANSISTOR	2SC2412K-QR 2SC2412K-QR	
IC3706	8-759-262-03	IC MC14577CF		Q308	8-729-920-74	TRANSISTOR	2SC2412K-OR	
IC3707 IC3708	8-759-011-65 8-759-352 - 06	IC MC74HC4053F IC CXD2031R-65846GJ0	153EN	Q309	8-729-920-74			
IC3709	0_750_200_05	TO MDAAGGEM M		Q351	8-729-920-74	TRANSISTOR	2SC2412K-QR	(KV-28WS3B)
IC3709	8-759-925-74	IC SN74HC04ANS		0352	8-729-920-74 8-729-920-74	TRANSISTOR	2SC2412K-QR ((KV-28WS3B)
IC3712	8-759-100-94	IC UPC358G2		Q354	8-729-216-22	TRANSISTOR	2SA1162-G (K)	(NV-20WS3B) 7-28WS3B)
IC3713	8-759-183-35	IC TDA9160A (KV-28WS3A/28WS3D/28	WS3E/28WS3K/28WS3U)	Q356	8-729-216-22	TRANSISTOR	2SA1162-G (KV	7-28WS3B)
IC3714	8-759-009-02	IC MC14046BF		Q358 Q359	8-729-216-22	TRANSISTOR	2SA1162-G (KV	7-28WS3B)
103/14	0 735 005-02	IC WC14040BL		Q360	8-729-900-53 8-729-901-04	TRANSISTOR	DTC114EK	
	< CO1	IL >		Q501	8-729-216-22	TRANSISTOR	2SA1162-G	
L01	1-408-397-00	INDUCTOR 1UH		Q502	8-729-216-22	TRANSISTOR	2SA1162-G	
L02	1-408-397-00			Q503	8-729-216-22	#PANCTC#∩D	2631162_0	
L301	1-408-403-00	INDUCTOR 3.3UH		Q504	8-729-216-22	TRANSISTOR	2SA1162-G 2SA1162-G	
L302	1-408-403-00			Q505	8-729-119-78	TRANSISTOR	2SC2785-HFE (KV-28WS3B)
L303	1-408-403-00	INDUCTOR 3.3UH		Q506	8-729-216-22	TRANSISTOR	2SA1162-G	(20man (20man)
L304	1-414-248-11					(AV-ZOWSDA/	20W53D/20W53E	/28WS3K/28WS3U)
L305	1-414-248-11			Q507	8-729-216-22	TRANSISTOR	2SA1162-G	
L306 L307	1-408-403-00 1-408-397-00			Q508	8-729-216-22	TRANSISTOR	2SA1162-G	
L308	1-408-397-00			Q509 Q510	8-729-216-22 8-729-216-22	TRANSISTOR	25A1162-G (KV	-28MG3B1
				Q1301	8-729-920-74	TRANSISTOR	25C2412K-QR	-201030/
L501 L502	1-408-397-00 1-408-397-00		KV-28WS3B) KV-28WS3B)	01303	0 700 000 74		0.000440	
L502	1-414-243-11		(4-70M92D)	Q1302 Q1303	8-729-920-74 8-729-920-74	TRANSISTOR	2SC2412K-QR	
L504	1-414-243-11	INDUCTOR 1UH		Q1304	8-729-920-74	TRANSISTOR	2SC2412K-QR 2SC2412K-OR	
L505	1-414-243-11	INDUCTOR 1UH		Q1305 Q1306	8-729-920-74 8-729-920-74	TRANSISTOR	2SC2412K-OR	
L506	1-408-397-00							
L507 L508	1-408-397-00 1-408-397-00			Q1307	8-729-920-74	TRANSISTOR	2SC2412K-QR	
1509	1-408-397-00			Q1316 Q1317	8-729-920-74 8-729-920-74	TRANSISTOR	2SC2412K-QR	
L510	1-408-397-00	INDUCTOR 1UH		Q1317 Q1318	8-729-216-22	TRANSISTOR	2SA1162-G	
		(KV-28WS3A/28WS3D/28W	7S3E/28WS3K/28WS3U)	Q1319	8-729-216-22	TRANSISTOR :	2SA1162-G	
L511	1-408-397-00		(C) (1 (1 (C) (C) (C) (C) (C) (C) (C) (C) (C) (C)	Q3700	8-729-920-74	TRANSISTOR 2	2SC2412K-QR	
L512	1-408-405-00	(KV-28WS3A/28WS3D/28W INDUCTOR 4.7UH	1036/46W53K/46W53U)	Q3701 Q3703	8-729-920-74 8-729-920-74	TRANSISTOR (2SC2412K-QR	
L513	1-408-405-00	INDUCTOR 4.7UH		Q3704	8-729-920-74	TRANSISTOR (35C2412K-QK 2SC2412K-OR	
L1406	1-408-403-00			Q3706	8-729-900-53	TRANSISTOR I	OTC114EK	
L3700	1-408-403-00	INDUCTOR 3.3UH		Q3708	8-729-920-74	TRANSISTOR 2	SC2412K-QR	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>		REMARK
Q3709 Q3710 Q3712 Q3713	8-729-920-74 8-729-920-74 8-729-920-74 8-729-920-74	TRANSISTOR 2SC2412K-QI TRANSISTOR 2SC2412K-QI TRANSISTOR 2SC2412K-QI	R R	R312 R313 R314 R315	1-216-057-00 1-216-659-11 1-216-651-11 1-208-767-11	METAL CHIP METAL CHIP	2.2K 2.2K 1K 240	0.50% 0.50%	1/10W 1/10W 1/10W 1/10W
Q3714	8-729-027-43	TRANSISTOR DTC114EKA (KV-28WS3A/28WS3D/28WS	53E/28WS3K/28WS3U)	R316 R317	1-216-022-00 1-216-043-91	METAL GLAZE	75 560	5% 5%	1/10W 1/10W
201		SISTOR >	F00: 1/10m	R318 R319	1-216-049-91 1-216-097-91	METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
R01 R02 R03	1-216-629-11 1-216-635-11 1-216-635-11	METAL CHIP 220 0. METAL CHIP 220 0.	.50% 1/10W .50% 1/10W .50% 1/10W	R320 R321	1-216-051-00 1-216-067-00	METAL GLAZE	5.6K	5% 5%	1/10W 1/10W
R04 R05 ♀	1-216-043-91	METAL GLAZE 560 5%	6 1/10W	R322 R323 R324	1-216-043-91 1-216-057-00 1-216-063-91	METAL GLAZE METAL GLAZE		5%	1/10W 1/10W 1/10W
R06 R07 R08	1-216-043-91 1-216-663-11 1-216-659-11	METAL CHIP 3.3K 0.	% 1/10W .50% 1/10W .50% 1/10W	R325 R326	1-216-097-91	METAL GLAZE METAL GLAZE	100K 56K	5% 5%	1/10W 1/10W
R09 R24	1-216-662-11 1-216-655-11	METAL CHIP 3K 0.	.50% 1/10W .50% 1/10W	R327 R328 R329	1-216-097-91 1-216-049-91 1-216-049-91		100K 1K 1K	5% 5% 5%	1/10W 1/10W 1/10W
	1-216-651-11	(KV-28WS3A/28WS3D/28WS	33E/28WS3K/28WS3U) .50% 1/10W	R330	1-216-091-00	METAL GLAZE	56K	5%	1/10W
DOF	1 016 655 11	MORNE COTTO 4 For A	(KV-28WS3B)	R331 R332	1-216-075-00 1-216-063-91			5% 5%	1/10W 1/10W
R25	1-216-655-11 1-216-651-11	(KV-28WS3A/28WS3D/28WS	.50% 1/10W 83E/28WS3K/28WS3U) .50% 1/10W (KV-28WS3B)	R333 R334 R335	1-216-057-00 1-216-037-00 1-216-051-00	METAL GLAZE METAL GLAZE METAL GLAZE	330	5% 5% 5%	1/10W 1/10W 1/10W
R26	1-216-655-11	METAL CHIP 1.5K 0.	.50% 1/10W	R336 R337	1-216-075-00 1-216-043-91	METAL GLAZE		5% 5%	1/10W 1/10W
R27 R28	1-216-047-91 1-216-047-91	METAL GLAZE 820 5%	6 1/10W	R338 R339	1-216-063-91 1-216-057-00	METAL GLAZE METAL GLAZE	3.9K	5% 5%	1/10W 1/10W
R29 R36	1-216-047-91 1-216-631-11		6 1/10W 50% 1/10W	R356	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W (KV-28WS3B)
R37	1-216-631-11	(KV-28WS3A/28WS3D/28WS		R357	1-216-057-00	METAL GLAZE	2.2K		1/10W (KV-28WS3B)
	1-216-627-11	METAL CHIP 100 0.	50% 1/10W (KV-28WS3B)	R358	1-216-645-11 1-216-059-00		560 2.7K		1/10W (KV-28WS3B) 1/10W
R38	1-216-631-11	(KV-28WS3A/28WS3D/28WS					2./R	Jo	(KV-28WS3B)
	1-216-627-11	METAL CHIP 100 0.	50% 1/10W (KV-28WS3B)	R360 R361	1-216-645-11			0.50%	1/10W (KV-28WS3B)
R53 R56	1-216-295-91 1-216-073-00		4 14 4	R362	1-218-800-11		5.6K		(KV-28WS3E)
R57	1-216-073-00	METAL GLAZE 10K 5% (KV-28WS3A/28WS3D/28WS		R363	1-216-663-11	метат. Ситр	3.3K	N 5 0 %	(KV-28WS3B)
R58	1-216-057-00	•	•	R364	1-216-663-11		3.3K		(KV-28WS3B)
R59 R60 R61	1-216-049-91 1-216-073-00 1-216-295-91	METAL GLAZE 10K 5%	1/10W	R365	1-216-059-00	METAL GLAZE	2.7K	5%	(KV-28WS3B) 1/10W (KV-28WS3B)
R63	1-216-295-91	METAL GLAZE 0 5% (KV-28WS3A/28WS3D/28WS		R367	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R301 R302	1-216-022-00 1-216-073-00			R368	1-216-660-11	METAL CHIP	2.4K	0.50%	(KV-28WS3B) 1/10W (KV-28WS3B)
R303 R304 R305	1-216-039-00 1-208-767-11 1-216-043-91	METAL GLAZE 390 5% METAL CHIP 240 0.	5 1/10W 50% 1/10W	R372	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W (KV-28WS3B)
R306	1-216-049-91	METAL GLAZE 1K 5%	1/10W	R373	1-216-660-11		2.4K		(KV-28WS3B)
R307 R308	1-216-059-00 1-216-051-00		1/10W	R374 R375	1-216-025-91 1-216-025-91	METAL GLAZE	100	5% 5%	1/10W 1/10W
R309 R310	1-216-664- 1 1 1-216-067-00		50% 1/10W 1/10W	R376	1-216-065-00		4.7K		1/10W
R311	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R377 R378	1-216-053-00 1-216-073-00		1.5K 10K		1/10W 1/10W

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REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION	ON		REMARK
R501 R502 R505	1-216-025-91 1-216-025-91 1-216-049-91	METAL GLAZE 1	100 5% 100 5% LK 5%	1/10W 1/10W 1/10W	R565	1-216-073-00	METAL GLAZE	10K	5%	1/10W (KV-28WS3B)
R506	1-216-049-91	METAL GLAZE 1	LK 5%	1/10W	R566	1-216-073-00	METAL GLAZE	10K	5%	1/10W (KV-28WS3B)
R507 R508	1-216-049-91 1-216-632-11	METAL GLAZE 1	LK 5%	1/10W 1/10W	R567	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R509 R510	1-216-631-11 1-216-631-11	METAL CHIP 1	.50 0.50%	1/10W 1/10W 1/10W	R568	1-216-073-00	METAL GLAZE	10K	5%	/28WS3K/28WS3U) 1/10W /28WS3K/28WS3U)
R511 R512	1-216-663-11 1-216-049-91		3.3K 0.50%	1/10W 1/10W	R571	1-216-017-91		47	5%	1/10W
R513	1-216-659-11	METAL CHIP 2	.2K 0.50%	1/10W	R575	1-216-033-00		220	28W53E/ 5%	/28WS3K/28WS3U) 1/10W
R514	1-216-049-91	(KV-28WS3A/28WS	.K 5% 33D/28WS3E/	1/10W 28WS3K/28WS3U)	R577	1-216-295-91	METAL GLAZE	0	5%	(KV-28WS3B) 1/10W (KV-28WS3B)
R515	1-216-091-00	METAL GLAZE 5 (KV-28WS3A/28WS	6K 5%	1/10W 28W53K/28W53H)	R579	1-216-631-11	METAL CHIP	150	0 509	6 1/10W
R516	1-216-077-00	METAL GLAZE 1	.5K 5%	1/10W						(KV-28WS3E)
R517	1-216-073-00		.OK 5%	1/10W	R580	1-216-295-91		0	5%	1/10W
R518	1-216-057-00	METAL GLAZE 2	.2K 5%	1/10W	R582	1-216-073-00		10K	5%	1/10W
R519	1-216-053-00	MRTAI, GLAZE 1	.5K 5%	1/10W	R583	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R520	1-216-085-00		3K 5%	1/10W	R1301	1-216-049-91	METAL CLASE	1K	5%	1/10W
R521	1-216-071-00		.2K 5%	1/10W	R1302	1-216-025-91		100	5%	1/10W
R522	1-216-071-00		.2K 5%	1/10W	R1303	1-216-075-00		12K	5%	1/10W
R523	1-216-061-00	METAL GLAZE 3	.3K 5%	1/10W	R1304	1-216-081-00		22K	5%	1/10W
					R1305	1-216-057-00		2.2K	5%	1/10W
R524	1-216-121-91		M 5%	1/10W						
R528	1-216-025-91		00 5%	1/10W	R1306	1-216-055-00		1.8K		1/10W
2500	1 010 556 11	(KV-28WS3A/28WS			R1307	1-216-069-00	METAL GLAZE	6.8K		1/10W
R529	1-218-756-11		50K 0.50%		R1308	1-216-049-91		1K	5%	1/10W
R530	1-216-047-91	METAL GLAZE 8	20 5%	1/10W	R1310 R1311	1-216-053-00	METAL GLAZE	1.5K		1/10W
R531	1-216-047-91	METAL GLAZE 8	20 5%	1/10W	KISII	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R532	1-216-295-91			1/10W	R1312	1-216-651-11	митат. Ситр	1K	0.50%	3 1/10W
				(KV-28WS3B)	R1313	1-216-065-00		4.7K	5%	1/10W
R535	1-216-047-91	METAL GLAZE 8	20 5%	1/10W	R1314	1-216-063-91		3.9K	5%	1/10W
R536	1-216-025-91		00 5%	1/10W	R1315	1-208-767-11		240		1/10W
		(KV-28WS3A/28WS	3D/28WS3E/	28WS3K/28WS3U)	R1316	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R537	1-216-049-91			1/10W	R1317	1-216-057-00		2.2K	5%	1/10W
		(KV-28WS3A/28WS			R1318	1-216-049-91		1K	5%	1/10W
R538	1-216-073-00	METAL GLAZE 1	0K 5%	1/10W	R1319	1-216-069-00		6.8K		1/10W
2520	1 016 073 00		0** 50.	(KV-28WS3B)	R1320	1-216-648-11		750		1/10W
R539	1-216-073-00	METAL GLAZE I	0K 5%	1/10W (KV-28WS3B)	R1321	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
				4.44	R1322	1-216-053-00		1.5K		1/10W
R540	1-216-073-00	METAL GLAZE 1	OK 5%	1/10W	R1323	1-216-049-91		1K	5%	1/10W
DEEA	1 216 665 11	MEMAI CUID 2	07 U EU®	(KV-28WS3B)	R1324	1-216-651-11		1K		1/10W
R554	1-216-665-11	METAL CHIP 3	.9K 0.50%	(KV-28WS3B)	R1325 R1326	1-216-063-91 1-216-063-91		3.9K 3.9K		1/10W 1/10W
R555	1-216-666-11	METAL CHIP 4	.3K 0.50%		R1520	1-210-003-31	BEIRD GLAZE	3.31	2%	1/10#
				(KV-28WS3B)	R1327	1-216-065-00		4.7K	5%	1/10W
					R1328	1-216-073-00		10K	5%	1/10W
R556	1-216-631-11	METAL CHIP 1	50 0.50%	1/10W	R1329	1-216-073-00		10K	5%	1/10W
neer	1-216-602-11	MEMAT CUITO 1	0 0 500	(KV-28WS3B)	R1330	1-216-081-00		22K	5%	1/10W
R557	1-216-603-11			1/10W (KV-28WS3B)	R1331	1-216-650-11		910	0.50%	1/10W
R558	1-216-073-00	METAL GLAZE 1	0K 5%	1/10W	R1332	1-216-626-11		91		1/10W
				(KV-28WS3B)	R1366	1-216-063-91		3.9K		1/10W
R559	1-216-073-00	ህ ምባልፒ. ረር.እምም 19	OK 5%	1/10W	R1367 R1368	1-216-049-91		1K	5%	1/10W
V)33	1-210-0/3-00	WEIGH GRAVE I	UL 36	(KV-28WS3B)	R1368 R1369	1-216-049-91 1-216-083-00		1K 27K	5% 5%	1/10W 1/10W
R560	1-216-121-91	METAL GLAZE 11	M 5%	1/10W	MAJOJ	I DIO-003-00	THE THE STREET	411	J10	1/1011
		(KV-28WS3A/28WS			R1370	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R561	1-216-663-11		.3K 0.50%		R1371	1-216-049-91		1K	5%	1/10W
					R1372	1-216-105-91	METAL GLAZE	220K		1/10W
R562	1-216-031-00		80 5%	1/10W	R1373	1-216-097-91	METAL GLAZE	100K		1/10W
R563	1-216-031-00		80 5%	1/10W	R1374	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R564	1-216-031-00	METAL GLAZE 18	80 5%	1/10W	מליכום	1_316 040 04	MDMAT CTACE	1 **	E0-	1 /1057
					R1375	1-216-049-91	METAL GLAZE	1K	5%	1/10W

B1 B2

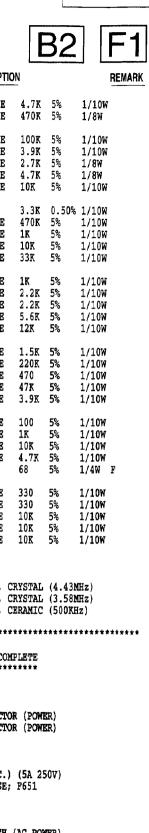
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1376 R1377	1-216-049-91 1-216-057-00	METAL GLAZE 1K METAL GLAZE 2.2K	5% 1/10W 5% 1/10W	R3758	1-216-025-91	METAL GLAZE 100 5% (KV-28WS3A/28WS3D/28WS3	1/10W BE/28WS3K/28WS3U)
R3701 R3702	1-216-073-00 1-216-041-00	METAL GLAZE 10K METAL GLAZE 470	5% 1/10W 5% 1/10W	R3759 R3760 R3761	1-216-057-00 1-216-113-00 1-216-079-00	METAL GLAZE 470K 5%	1/10W 1/10W 1/10W
R3703 R3704 R3705	1-216-069-00 1-216-619-11 1-216-619-11	METAL CHIP 47	5% 1/10W 0.50% 1/10W 0.50% 1/10W	R3762	1-216-097-91	(KV-28WS3A/28WS3D/28WS3	3E/28WS3K/28WS3U) 1/10W
R3706 R3707	1-216-619-11 1-216-025-91	METAL CHIP 47	0.50% 1/10W 5% 1/10W	R3763 R3768	1-216-025-91	(KV-28WS3A/28WS3D/28WS3 METAL GLAZE 100 5%	3E/28WS3K/28WS3U) 1/10W
R3708 R3709	1-216-025-91 1-216-041-00	METAL GLAZE 470	5% 1/10W 5% 1/10W	R3769	1-216-057-00 1-216-057-00	METAL GLAZE 2.2K 5%	1/10W 1/10W
R3710** R3711 R3712	1-216-051-00 1-216-057-00 1-216-057-00		5% 1/10W 5% 1/10W 5% 1/10W	R3770 R3771 R3772	1-216-041-00 1-216-073-00 1-216-037-00	METAL GLAZE 10K 5% METAL GLAZE 330 5%	1/10W 1/10W 1/10W
R3713 R3714	1-216-049-91 1-216-067-00	METAL GLAZE 5.6K	5% 1/10W 5% 1/10W	R3773	1-216-037-00	(KV-28WS3A/28WS3D/28WS3 METAL GLAZE 330 5% (KV-28WS3A/28WS3D/28WS3	1/10W
R3715 R3716 R3717	1-216-067-00 1-216-067-00 1-216-025-91	METAL GLAZE 5.6K		R3774 R3775	1-216-073-00 1-216-073-00	METAL GLAZE 10K 5%	1/10W 1/10W
R3718 R3719	1-216-025-91 1-216-041-00	METAL GLAZE 470	5% 1/10W 5% 1/10W	R3776 R3777 R3778	1-216-073-00 1-216-073-00 1-216-295-91	METAL GLAZE 10K 5%	1/10W 1/10W 1/10W
R3720 R3722	1-216-073-00 1-216-073-00	METAL GLAZE 10K	5% 1/10W 5% 1/10W	R3779	1-216-295-91	METAL GLAZE 0 5%	(KV-28WS3B) 1/10W
R3723	1-216-041-00 1-216-049-91		5% 1/10W 28WS3E/28WS3K/28WS3U) 5% 1/10W	R3780	1-216-295-91	METAL GLAZE 0 5%	(KV-28WS3B) 1/10W (KV-28WS3B)
R3724	1-216-057-00	METAL GLAZE 2.2K	(KV-28WS3B) 5% 1/10W	R3781	1-216-033-00	METAL GLAZE 220 5% (KV-28WS3A/28WS3D/28WS3	1/10W E/28WS3K/28WS3U)
R3725 R3726 R3727	1-216-043-91 1-216-043-91 1-216-043-91	METAL GLAZE 560	5% 1/10W 5% 1/10W 5% 1/10W	R3782 R3783	1-216-065-91 1-216-059-91	(KV-28WS3A/28WS3D/28WS3	1/10W E/28WS3K/28WS3U) 1/10W
R3729 R3730	1-216-073-00 1-216-049-91	METAL GLAZE 10K	5% 1/10W 5% 1/10W			STAL >	2,200
R3731 R3732 R3734	1-216-057-00 1-216-025-91 1-216-041-00	METAL GLAZE 100 METAL GLAZE 470	5% 1/10W 5% 1/10W 5% 1/10W	X301 X302 X3700	1-527-722-00	VIBRATOR, CRYSTAL (17.8 OSCILLATOR, CRYSTAL (14 OSCILLATOR, CRYSTAL (4.	.3MHz) 43MHz)
R3735 R3736	1-216-073-00 1-216-089-91	METAL GLAZE 47K	5% 1/10W 5% 1/10W 28WS3E/28WS3K/28WS3U)	x3701	1-567-505-11	(KV-28WS3A/28WS3D/28WS3 OSCILLATOR, CRYSTAL (3. (KV-28WS3A/28WS3D/28WS3	58MHz)
R3737 R3738	1-216-057-00 1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	******		**********	
R3739 R3740 R3741	1-216-057-00 1-216-073-00 1-216-121-91	METAL GLAZE 10K	5% 1/10W 5% 1/10W 5% 1/10W		*A-1620-068-A	B2 BOARD, COMPLETE (KV-	28WS3B)
D2740	1 216 041 00	NOW 1 07 107 170	E9. 1 /1 014		< CAP	ACITOR >	
R3742 R3743 R3745	1-216-041-00 1-216-085-00 1-216-033-00	METAL GLAZE 33K	5% 1/10W 5% 1/10W 5% 1/10W	C9001 C9002	1-104-665-11	ELECT 100MF CERAMIC CHIP 0.1MF	20% 25V 25V
R3746	1-216-073-00		(KV-28WS3B) 5% 1/10W	C9003 C9004	1-163-038-91 1-164-337-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 2.2MF	25V 16V
R3748	1-216-073-00		5% 1/10W	C9005		CERAMIC CHIP 0.1MF	25V
R3749 R3750	1-216-089-91 1-216-033-00		5% 1/10W 5% 1/10W	C9006 C9007		CERAMIC CHIP 13PF CERAMIC CHIP 15PF	5% 50V 5% 50V
R3753	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C9008	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
R3754	1-216-081-00	METAL GLAZE 22K	5% 1/10W 28WS3E/28WS3K/28WS3U)	C9009 C9010	1-163-809-11	CERAMIC CHIP 0.047MF CERAMIC CHIP 0.1MF	10% 25V 10% 25V
R3755	1-216-079-00	METAL GLAZE 18K (KV-28WS3A/28WS3D/2	5% 1/10W 28WS3E/28WS3K/28WS3U)	C9013 C9014		CERAMIC CHIP 0.22MF CERAMIC CHIP 0.0047MF	25V 10% 50V
R3756	1-216-025-91	METAL GLAZE 100	5% 1/10W 28WS3E/28WS3K/28WS3U)	C9015 C9016	1-126-964-11		20% 50V 10% 50V
R3757	1-216-073-00	METAL GLAZE 10K	5% 1/10W 28WS3E/28WS3K/28WS3U)	C9017		CERAMIC CHIP 0.033MF	10% 25V

The components identified by shading and marked in are critical

For safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque de sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



specifi	ied.	ро	rtant le nur	nero specifie					<u>' </u>	
REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION	ON	REMARK	
C9018 C9019 C9020		CERAMIC CHIP 0.1MF CERAMIC CHIP 470PF ELECT 100MF	10% 5% 20%	25V 50V 25V	R9009 R9010		METAL GLAZE METAL GLAZE	4.7K 5% 470K 5%	1/10W 1/8W	
C9021 C9022		CERAMIC CHIP 0.0033MF CERAMIC CHIP 150PF	10% 5%	50V 50V	R9011 R9012 R9013	1-216-097-91 1-216-063-91 1-216-208-00	METAL GLAZE	100K 5% 3.9K 5% 2.7K 5%	1/10W 1/10W 1/8W	
C9023 C9024 C9025	1-164-182-11	CERAMIC CHIP 0.022MF CERAMIC CHIP 0.0033MF CERAMIC CHIP 0.01MF	10% 10% 10%	25V 50V 50V	R9014 R9015	1-216-214-00 1-216-073-00	METAL GLAZE	4.7K 5% 10K 5%	1/8W 1/10W	
C9026 C9027		CERAMIC CHIP 0.0047MF CERAMIC CHIP 0.1MF	10%	5 0 V 2 5 V	R9016 R9017 R9018	1-216-663-11 1-216-113-00 1-216-049-91	METAL GLAZE	3.3K 0.50% 470K 5% 1K 5%	% 1/10W 1/10W 1/10W	
C9028	1-124-925-11		20%	5 0 V	R9019 R9020	1-216-073-00 1-216-085-00		10K 5% 33K 5%	1/10W 1/10W	
	< CON	INECTOR >			R9021	1-216-049-91	METAL GLAZE	1K 5%	1/10W	
CN9001		CONNECTOR, BOARD TO B	OARD 20P		R9022 R9023	1-216-057-00 1-216-057-00	METAL GLAZE METAL GLAZE	2.2K 5% 2.2K 5%	1/10W 1/10W	
D0000	< DIO	DE >			R9024 R9025	1-216-067-00 1-216-075-00		5.6K 5% 12K 5%	1/10W 1/10W	
D9002 D9003		DIODE DAN202K DIODE MA3082M-TX			R9026 R9027	1-216-053-00 1-216-105-91		1.5K 5% 220K 5%	1/10W 1/10W	
	< IC	>			R9028	1-216-041-00	METAL GLAZE	470 5%	1/10W	
IC9001 IC9002	8-759-343 - 40 8-759-360-44	IC TDA9145/N3D IC TEA2130			R9029 R9030	1-216-089-91 1-216-063-91	METAL GLAZE	47K 5% 3.9K 5%	1/10W 1/10W	
	< TRA	NSISTOR >			R9031 R9032	1-216-025-91 1-216-049-91	METAL GLAZE	100 5% 1K 5%	1/10W 1/10W	
Q9001	8-729-920-74	TRANSISTOR 2SC2412K-Q	R		R9033 R9034	1-216-073-00 1-216-065-00		10K 5% 4.7K 5%	1/10W 1/10W	
Q9002 Q9003 Q9004	8-729-920-74 8-729-920-74 8-729-901-04	TRANSISTOR 2SC2412K-QI TRANSISTOR 2SC2412K-QI TRANSISTOR DTA114EK	R	İ	R9035 R9036	1-249-403-11 1-216-037-00	CARBON METAL GLAZE	68 5% 330 5%	1/4W F 1/10W	
Q9005	8-729-216-22	TRANSISTOR 2SA1162-G			R9037 R9038	1-216-037-00 1-216-073-00	METAL GLAZE	330 5% 10K 5%	1/10W 1/10W	
Q9006 Q9007 Q9008	8-729-920-74	TRANSISTOR DTA114EK TRANSISTOR 2SC2412K-QI TRANSISTOR 2SC2412K-QI			R9039 R9040	1-216-073-00 1-216-073-00	METAL GLAZE	10K 5% 10K 5%	1/10W 1/10W	
	< RES	ISTOR >			< CRYSTAL >					
JR9001 JR9002 JR9003	1-216-296-91 1-216-295-91 1-216-295-91		% 1/10W		X9001 X9002 X9003	1-567-505-11	OSCILLATOR, COSCILLATOR, COSCIL	RYSTAL (3.58	MHz)	
JR9004 JR9005	1-216-295-91 1-216-295-91 1-216-295-91	METAL GLAZE 0 59	% 1/10W		******	********	******	******	*******	
JR9006 JR9007	1-216-295-91					*A-1624-052-A	F1 BOARD, COM			
JR9008 JR9009		METAL GLAZE 0 5%				< CON	NECTOR >			
JR9010	1-216-295-91		-			% *1-580-844-11 % *1-695-292-11				
JR9011 JR9012 JR9013	1-216-296-91 1-216-296-91 1-216-296-91	METAL GLAZE 0 5%	1/8W			< FUS	E >			
JR9014 JR9015	1-216-296-91 1-216-295-91	METAL GLAZE 0 5%	1/8W		F651 &	1-576-232-21 1-533-230-11	FUSE (H.B.C.) HOLDER, FUSE;			
JR9016 JR9017	1-216-295-91 1-216-295-91		-			< SWI	TCH >			
R9001 R9002 R9003 R9004 R9005	1-216-025-91 1-216-033-00 1-216-033-00 1-216-097-91 1-216-025-91	METAL GLAZE 220 5% METAL GLAZE 220 5% METAL GLAZE 100K 5%	1/10W 1/10W 1/10W		\$651 <i>A</i>	1-571-433-21	SWITCE, PUSH	(AC POWER)		
R9006 R9007 R9008	1-216-025-91 1-216-049-91 1-216-041-00	METAL GLAZE 1K 5%	1/10W							



*A-1626-004-A Q BOARD, COMPLETE (KV-28WS3A/28WS3D/ ************************************	0.1MF 0.1MF 10MF 10MF 0.1MF 0.1MF 0.1MF	50V 50V 50V 20% 50V 20% 50V 50V 50V
C3501 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V C3578 1-165-319-11 CERAMIC CHIP	0.1MF 0.1MF 0.1MF	50V
C3504 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V C3579 1-165-319-11 CERAMIC CHIP 0.3505 1-164-326-91 CERAMIC CHIP 0.47MF 10% 25V C3580 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3581 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3582 1-165-319-11 CERAMIC CHIP 0.001MF 10% 50V C3582 1-165-319-11 CERAMIC CHIP 0.001MF 10.001MF 10% 50V C35		50V 50V
C3509 1-163-009-11 CERAMIC CHIP 0.001MF 10% 50V C3583 1-165-319-11 CERAMIC CHIP C3510 1-163-009-11 CERAMIC CHIP 0.001MF 10% 50V C3584 1-165-319-11 CERAMIC CHIP C3511 1-124-903-11 ELECT 1MF 20% 50V C3585 1-165-319-11 CERAMIC CHIP C3515 1-126-964-11 ELECT 10MF 20% 50V C3586 1-165-319-11 CERAMIC CHIP C3517 1-163-099-00 CERAMIC CHIP 18PF 5% 50V C3587 1-126-964-11 ELECT	0.1MF 0.1MF 0.1MF	50V 50V 50V 50V 20% 50V
C3519 1-126-964-11 ELECT 10MF 20% 50V C3588 1-165-319-11 CERANIC CHIP C3521 1-126-964-11 ELECT 10MF 20% 50V C3589 1-165-319-11 CERANIC CHIP C3522 1-126-964-11 ELECT 10MF 20% 50V C3590 1-165-319-11 CERANIC CHIP C3523 1-126-964-11 ELECT 10MF 20% 50V C3591 1-165-319-11 CERANIC CHIP C3524 1-126-964-11 ELECT 10MF 20% 50V C3592 1-165-319-11 CERANIC CHIP C3524 1-126-964-11 ELECT 10MF 20% 50V C3592 1-165-319-11 CERANIC CHIP	0.1MF 0.1MF 0.1MF	50V 50V 50V 50V 50V
C3525 1-104-664-11 ELECT 47MF 20% 25V C3593 1-165-319-11 CERANIC CHIP C3526 1-104-664-11 ELECT 47MF 20% 25V C3594 1-165-319-11 CERANIC CHIP C3527 1-165-319-11 CERANIC CHIP 0.1MF 50V C3595 1-165-319-11 CERANIC CHIP C3528 1-165-319-11 CERANIC CHIP 0.1MF 50V C3596 1-165-319-11 CERANIC CHIP C3529 1-165-319-11 CERANIC CHIP 0.1MF 50V C3597 1-126-964-11 ELECT	0.1MF 0.1MF 0.1MF	50V 50V 50V 50V 50V 20% 50V
C3530 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3598 1-165-319-11 CERAMIC CHIP C3531 1-163-099-00 CERAMIC CHIP 18PF 5% 50V C3599 1-165-319-11 CERAMIC CHIP C3533 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3602 1-165-319-11 CERAMIC CHIP C3534 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3603 1-165-319-11 CERAMIC CHIP C3535 1-163-009-11 CERAMIC CHIP 0.001MF 10% 50V C3604 1-165-319-11 CERAMIC CHIP C3535 1-163-009-11 CERAMIC CHIP 0.001MF 10% 50V C3604 1-165-319-11 CERAMIC CHIP	0.1MF 0.1MF 0.1MF	50V 50V 50V 50V 50V
C3536 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3605 1-165-319-11 CERAMIC CHIP 0.2537 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3608 1-165-319-11 CERAMIC CHIP 0.2538 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3609 1-165-319-11 CERAMIC CHIP 0.2539 1-126-964-11 ELECT 10MF 20% 50V C3610 1-165-319-11 CERAMIC CHIP 0.2540 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3614 1-165-319-11 CERAMIC CHIP 0.2540 1-165-319-11 CERAMIC CHIP 0.25540 1-165-319-11 CERAMIC CHIP 0.25540 1-255-319-11 CERAMIC CHIP 0.25540 1-2	0.1MF 0.1MF 0.1MF	50V 50V 50V 50V 50V
C3541 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3615 1-165-319-11 CERAMIC CHIP C3542 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3616 1-165-319-11 CERAMIC CHIP C3543 1-126-964-11 ELECT 10MF 20% 50V C3617 1-165-319-11 CERAMIC CHIP C3544 1-163-105-00 CERAMIC CHIP 33PF 5% 50V C3618 1-165-319-11 CERAMIC CHIP C3545 1-163-121-00 CERAMIC CHIP 150PF 5% 50V C3619 1-165-319-11 CERAMIC CHIP	0.1MF 0.1MF 0.1MF	50V 50V 50V 50V
C3546 1-163-121-00 CERAMIC CHIP 150PF 5% 50V C3620 1-165-319-11 CERAMIC CHIP C3547 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3621 1-165-319-11 CERAMIC CHIP C3549 1-126-964-11 ELECT 10MF 20% 50V C3622 1-126-964-11 ELECT C3550 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3623 1-126-964-11 ELECT C3552 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3624 1-165-319-11 CERAMIC CHIP 0.1MF	0.1MF 10MF 2 10MF 2	50V 50V 20% 50V 20% 50V 50V
C3553 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3625 1-165-319-11 CERAMIC CHIP C3554 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3626 1-165-319-11 CERAMIC CHIP C3555 1-126-964-11 ELECT 10MF 20% 50V C3628 1-165-319-11 CERAMIC CHIP C3556 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3629 1-165-319-11 CERAMIC CHIP C3557 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3631 1-126-964-11 ELECT	0.1MF 0.1MF 0.1MF	50V 50V 50V 50V 50V
C3558 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3632 1-126-964-11 BLECT C3559 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3633 1-126-964-11 BLECT C3560 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3634 1-126-964-11 BLECT C3562 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3635 1-126-964-11 BLECT C3563 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3637 1-126-964-11 BLECT C3563 1-165-319-11 CERAMIC CHIP 0.1MF 50V C3637 1-126-964-11 BLECT	10MF 2 10MF 2 10MF 2	20% 50V 20% 50V 20% 50V 20% 50V
C3565	47MF 2	50V 20% 25V



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REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>	REMARK	REF.NO.	PART NO.	DESCRIPT	ON			REMARK
CN3503	1-695-513-23 < FF	1 SOCKET, CONNI	N SCTOR 30P RRITE BEAD RRITE BEAD RRITE BEAD RER > PASS		Q3502 Q3503 Q3504 Q3505	8-729-216-22 8-729-216-22 8-729-920-74 8-729-920-74	TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 2	SA1162 SA1162 SC24121 SC24121	-G -G K-QR K-OR		
FB3501 FB3502 FB3550	1-414-234-11 1-414-234-11 1-414-234-11	L INDUCTOR, FEE L INDUCTOR, FEE L INDUCTOR, FEE	RRITE BEAD RRITE BEAD RRITE BEAD		Q3506 Q3507 Q3512	8-729-216-22 8-729-119-78 8-729-027-59	TRANSISTOR 2 TRANSISTOR 2 TRANSISTOR 1	SA1162- SC2785- TC144E	-G ·HFE KA-T146		
TT 2500	< EN	CAPSULATED FILT	ER >		Q3513	8-729-216-22	TRANSISTOR 2	SA1162-	-G		
FL3502 FL3503	1-233-436-21	FILTER, LOW F	ASS			< RES	SISTOR >				
FL3504 FL3505 FL3506	1-236-071-11	ENCAPSULATED ENCAPSULATED	COMPONENT COMPONENT		JR3501	1-216-295-91	METAL GLAZE	0	5%	1/10W	
FL3507 FL3509 FL3512	1-236-071-11 1-236-071-11 1-236-071-11	ENCAPSULATED ENCAPSULATED ENCAPSULATED ENCAPSULATED	COMPONENT COMPONENT COMPONENT		R3502 R3503 R3504 R3506	1-216-666-11 1-216-631-11 1-216-025-91 1-216-065-00	METAL CHIP METAL CHIP METAL GLAZE METAL GLAZE	4.3K 150 100 4.7K	0.50% 0.50% 0.50% 5%	1/10W 1/10W 1/10W 1/10W	
FL3513 FL3514	1-236-071-11 1-236-071-11	ENCAPSULATED ENCAPSULATED	COMPONENT COMPONENT		R3508	1-216-603-11	METAL CHIP	10	0.50%	1/10W	
FL3515 FL3516	1-236-071-11 1-236-071-11	ENCAPSULATED ENCAPSULATED	COMPONENT COMPONENT		R3512 R3513 R3516 R3517	1-216-025-91 1-216-025-91 1-216-049-91	METAL GLAZE METAL GLAZE METAL GLAZE	100 100 1K	5% 5% 5%	1/10W 1/10W 1/10W	
	< IC	>			D3510	1 210 - 043 - 11	METAL CHIP	3.00	0.50%	1/10W	
IC3501 IC3503 IC3504 IC3506 IC3507	8-759-350-07 8-759-366-14 8-759-033-02 8-759-034-75	IC SDA9205-2G IC CY7C291A-3 IC MC74F04M IC MC74F157AM	EG 5JC-AE302 -T2		R3518 R3519 R3522 R3523 R3524	1-216-663-11 1-216-049-91 1-216-645-11 1-216-663-11	METAL CHIP METAL GLAZE METAL CHIP METAL CHIP	3.3K 1K 1K 560 3.3K	0.50% 5% 5% 0.50% 0.50%	1/10W 1/10W 1/10W 1/10W 1/10W	
IC3508 IC3509 IC3510 IC3511	8-759-034-75 8-759-034-75 8-759-034-75 8-759-351-57	IC MC74F157AM IC MC74F157AM IC MC74F157AM IC TMC57110-D	-T2 -T2 -T2 -T2 77527PB		R3525 R3528 R3529 R3530 R3531	1-216-049-91 1-216-049-91 1-216-645-11 1-216-049-91 1-208-800-11	METAL GLAZE METAL GLAZE METAL CHIP METAL GLAZE METAL CHIP	1K 1K 560 1K 5.6K	5% 5% 0.50% 5% 0.50%	1/10W 1/10W 1/10W 1/10W 1/10W	
IC3512 IC3513 IC3514 IC3515 IC3516 IC3517	8-759-358-55 8-759-351-56 8-759-297-80 8-759-297-80 8-759-350-05 8-759-350-05	IC P83C652FBA IC TMC57120-D' IC MSN514222B- IC MSN514222B- IC MSN548333TS	PER > PASS PASS PASS COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT COMPONENT FILE FILE FILE FILE FILE FILE FILE FILE		R3535 R3536 R3537 R3538 R3539	1-216-057-00 1-216-295-91 1-216-295-91 1-216-061-00 1-216-061-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 0 0 3.3K 3.3K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
IC3520 IC3521 IC3525 IC3526 IC3527	8-759-355-73 8-759-233-64 8-759-503-65 8-759-503-65 8-759-503-65	IC EPN7032LC44 IC TC74HCU04AI IC SN74BCT245I IC SN74BCT245I IC SN74BCT245I	!-15-AE301 ? !S-T5R !S-T5R !S-T5R		R3542 R3544 R3545 R3546 R3547	1-216-295-91 1-216-025-91 1-216-025-91 1-216-025-91 1-216-025-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 100 100 100 100	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
IC3528	8-759-034-75	IC MC74F157AM-	т2		R3548 R3549	1-216-025-91 1-216-025-91	METAL GLAZE	100 100		1/10W 1/10W	
	< C01	T >			R3550 R3551 R3552	1-216-025-91 1-216-025-91 1-216-025-91	METAL GLAZE	100	5%	1/10W 1/10W	
L3501 L3502 L3503 L3504 L3505	1-408-409-00 1-410-209-51 1-408-409-00 1-408-401-00 1-408-401-00	INDUCTOR CHIP INDUCTOR INDUCTOR	10UH 27UH 10UH 2.2UH 2.2UH		R3553 R3554 R3555 R3556 R3557	1-216-057-00 1-216-057-00 1-216-057-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 2.2K 2.2K 10	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
L3506 L3507 L3508 L3509 L3510	1-408-401-00 1-408-401-00 1-410-213-51 1-408-401-00 1-408-401-00	INDUCTOR INDUCTOR CHIP INDUCTOR	2.2UH 2.2UH 56UH 2.2UH 2.2UH		R3558 R3559 R3560 R3561 R3562	1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10 10 10 10	5% : 5% : 5% : 5% :	1/10W 1/10W 1/10W 1/10W 1/10W	
L3511	1-408-401-00	INDUCTOR	2.2UH		R3563					L/10W	
Q3501		NSISTOR > TRANSISTOR 2SC	2412K-QR		R3564 R3565	1-216-001-00 1-216-017-91 1-216-017-91 1-216-017-91	METAL GLAZE METAL GLAZE	47 47	5% 1 5% 1	L/10W L/10W L/10W L/10W	

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REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>		REMARK	REF.NO.	PART NO.	DESCRIPTION	<u>N</u>		REMARK
R3567	1-216-017-91	METAL GLAZE	47	5%	1/10W	R3631	1-216-001-00	METAL GLAZE	10	5%	1/10W
R3568 R3569 R3570 R3571 R3572	1-216-017-91 1-216-017-91 1-216-017-91 1-216-017-91 1-216-017-91		47 47 47 47 47	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3632 R3633 R3634 R3637 R3638	1-216-001-00 1-216-025-91 1-216-025-91 1-216-001-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10 100 100 10 10	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R3573 R3574 R3575 R3577 R3579	1-216-017-91 1-216-017-91 1-216-017-91 1-216-295-91 1-216-057-00	METAL GLAZE	47 47 47 0 2.2K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3639 R3640 R3641 R3642 R3643	1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10 10 10 10 10	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R3580 R3582 R3583 R3584 R3585	1-216-057-00 1-216-057-00 1-216-057-00 1-216-001-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 2.2K 2.2K 10 10	5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3644 R3646 R3647 R3649 R3650	1-216-001-00 1-216-001-00 1-216-001-00 1-216-295-91 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10 10 10 0	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R3586 R3587 R3588 R3589 R3590	1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10 10 10 10 10	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3651 R3652 R3661 R3663 R3664	1-216-057-00 1-216-041-00 1-216-025-91 1-216-295-91 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 470 100 0	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R3591 R3592 R3593 R3594 R3595	1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00	METAL GLAZE	10 10 10 10 10	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3672 R3673 R3674 R3675 R3676	1-216-660-11 1-216-660-11 1-216-017-91 1-216-017-91 1-216-017-91	METAL CHIP METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	2.4K 2.4K 47 47 47		1/10W 1/10W 1/10W 1/10W 1/10W
R3596 R3597 R3598 R3599 R3600	1-216-001-00 1-216-001-00 1-216-001-00 1-216-001-00 1-216-043-91	METAL GLAZE	10 10 10 10 56 0	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3677 R3678 R3679 R3680 R3681	1-216-017-91 1-216-017-91 1-216-017-91 1-216-017-91 1-216-017-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47 47 47 47 47	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R3601 R3602 R3603 R3604 R3605	1-216-061-00 1-216-043-91 1-216-043-91 1-216-043-91 1-216-043-91	METAL GLAZE METAL GLAZE METAL GLAZE	3.3K 560 560 560 560	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3682 R3683 R3684 R3685 R3686	1-216-017-91 1-216-017-91 1-216-017-91 1-216-017-91 1-216-017-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47 47 47 47 47	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R3606 R3607 R3608 R3609 R3610	1-216-043-91 1-216-043-91 1-216-043-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	560 560 560 560 560	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3687 R3688 R3689 R3690 R3698	1-216-017-91 1-216-017-91 1-216-017-91 1-216-631-11 1-216-295-91	METAL GLAZE METAL GLAZE METAL CHIP	47 47 47 150 0	5% 5% 5% 0.50% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R3611 R3612 R3613 R3614 R3615	1-216-043-91 1-216-043-91 1-216-043-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	560 560 560 560 560	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R3700 R3701 R3702 R3703	1-216-017-91 1-216-033-00 1-216-017-91 1-216-043-91	METAL GLAZE METAL GLAZE METAL GLAZE	47 220 47 560	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W
R3616		METAL GLAZE	2.2K		1/10W	W 2E02		STAL >	ያሮሞአተ. /	/1 2 אוני (1	
R3617 R3618 R3619	1-216-017-91	METAL GLAZE METAL GLAZE METAL GLAZE	10 0 47 47	5% 5% 5%	1/10W 1/10W 1/10W	X3502	*********	VIBRATOR, CRY			
R3620	1-216-017-91	METAL GLAZE	4 7	5%	1/10W		*A-1630-368-A				
R3621 R3622 R3623 R3625 R3626	1-216-001-00 1-216-001-00 1-216-001-00	METAL GLAZE	47 10 10 10 10	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C1236	1-164-348-11	ACITOR >	0.12M		10% 25V
R3627 R3628 R3629 R3630	1-216-001-00 1-216-001-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10 10 10 10	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	C1237 C1238 C1239 C1240	1-163-986-00 1-163-986-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.0271 0.0271	if If	10% 25V 10% 25V 10% 25V 10% 50V

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	REF.NO.	PART NO.	DESCRIPTI	ON		REMARK	REF.NO.	PART NO.	DESCRIPT	ION		REMARK
	C1241 C1242 C1243 C1244 C1245	1-163-014-00 1-163-014-00 1-163-010-11	CERAMIC CHIE CERAMIC CHIE CERAMIC CHIE CERAMIC CHIE CERAMIC CHIE	0.0027MF 0.0027MF 0.0012MF	10% 5% 5% 10% 10%	50V 50V 50V 50V 50V	C3245 C3246 C3247 C3248 C3249	1-126-964-11	CERAMIC CHI	10MF P 0.47MF P 0.47MF	10% 20% 10% 10% 5%	16V 50V 16V 16V 50V
	C1246 C1247 C1248 C1249 C1250		ELECT CERAMIC CHIP CERAMIC CHIP	0.1MF	20% 20% 10% 10% 10%	50V 16V 25V 25V 25V	C3250 C3251 C3252 C3253 C3254	1-107-823-11 1-163-133-00 1-163-023-00	CERAMIC CHI CERAMIC CHI CERAMIC CHI CERAMIC CHI CERAMIC CHI	P 0.47MF P 470PF P 0.015MF	10% 10% 5% 10% 10%	16V 16V 50V 50V 50V
Ç.	C1251 C1252 C1253 C1254 C1255	1-163-986-00 1-163-022-00 1-164-232-11 1-163-014-00 1-163-014-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.012MF 0.01MF 0.0027MF	10% 10% 10% 5% 5%	25V 50V 50V 50V 50V	C3255 C3256 C3257 C3258 C3259	1-163-809-11 1-163-011-11	CERAMIC CHI CERAMIC CHI CERAMIC CHI CERAMIC CHI ELECT	P 0.047MF P 0.0015MF	10% 10% 10% 10% 20%	25V 25V 50V 50V 16V
	C1256 C1257 C1264 C3201 C3202	1-163-009-11		0.001MF	10% 10% 10% 20% 20%	50V 50V 50V 50V 16V	C3260 C3265 C3266 C3267 C3268	1-164-232-11 1-136-157-00 1-136-161-00 1-164-232-11 1-164-232-11	FILM FILM CERAMIC CHI	0.022MF 0.047MF 0.01MF	10% 5% 5% 10% 10%	50V 50V 50V 50V 50V
	C3203 C3204 C3205 C3206 C3207	1-107-682-11 1-126-964-11 1-126-964-11 1-126-964-11 1-126-964-11	ELECT ELECT	1MF 10MF 10MF 10MF 10MF	10% 20% 20% 20% 20%	16V 50V 50V 50V 50V	C3269 C3270		CERAMIC CHIP CERAMIC CHIP NECTOR >	P 0.47MF P 0.47MF	10% 10%	16V 16V
				·	20%	5U V	CN1101	1-695-300-11	CONNECTOR, E	OARD TO BO	ARD 20P	
	C3208 C3209 C3210 C3211 C3212	1-107-682-11 1-136-159-00 1-136-480-11 1-136-159-00 1-126-934-11	FILM FILM FILM	1MF 0.033MF 0.0015MF 0.033MF 220MF	10% 5% 5% 5% 20%	16V 50V 100V 50V 16V	FB1104	< FER	RRITE BEAD >			
	C3215 C3216 C3217 C3218 C3219	1-126-934-11 1-126-964-11 1-126-964-11 1-126-964-11 1-126-964-11	ELECT ELECT ELECT	220MF 10MF 10MF 10MF 10MF	20% 20% 20% 20% 20%	16V 50V 50V 50V 50V	IC1205 IC3201 IC3202 IC3203	< IC 8-759-257-64 8-759-248-74 8-759-341-23 8-759-266-65	IC TDA7317 IC LA2785 IC LV1011			
	C3220	1-126-934-11		220MF	20%	16 v		< COI	L >			
	C3221 C3222 C3223 C3224	1-107-682-11 1-164-004-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	1MF 0.1MF	10% 10% 10% 10%	16V 16V 25V 25V	L1203 L3201 L3202	1-408-419-00 1-408-419-00 1-408-419-00	INDUCTOR	68UH 68UH 68UH		
	C3225 C3226	1-107-823-11 1-131-351-00	CERAMIC CHIP	0.47MF 4.7MF	10% 10%	16V		< TRA	NSISTOR >			
	C3227 C3228 C3229	1-107-823-11 1-131-351-00	CERAMIC CHIP	0.47MF 4.7MF	10% 10% 10% 10%	35V 16V 35V 16V	Q1203 Q1204	8-729-901-01 8-729-901-01	TRANSISTOR D	rc144ek rc144ek		
	C3230	1-131-350-00		3.3MF	10%	35V		< RES	ISTOR >			
	C3231 C3232 C3233 C3234	1-164-492-11 1-131-350-00	CERAMIC CHIP CERAMIC CHIP TANTALUM CERAMIC CHIP	0.15MF 3.3MF	10% 10% 10% 10%	16V 16V 35V 16V	JR3201 JR3202	1-216-295-91 1-216-295-91	METAL GLAZE	0 5% 0 5%	1/10W 1/10W	•
	C3235 C3236	1-131-351-00 1-107-823-11	TANTALUM CERAMIC CHIP	4.7MF 0.47MF	10% 10%	35V 16V	R1131 R1132 R1246 R1247	1-216-041-00 1-216-041-00 1-216-065-00 1-216-089-91	METAL GLAZE METAL GLAZE METAL GLAZE	470 5% 470 5% 4.7K 5% 47K 5%	1/10W 1/10W 1/10W 1/10W	
	C3237 C3238 C3239		CERAMIC CHIP		10% 10% 10%	35V 16V 25V	R1248 R1249 R1250	1-216-065-00 1-216-089-91 1-216-065-00	METAL GLAZE	4.7K 5% 47K 5%	1/10W 1/10W	
	C3240 C3241 C3242 C3243 C3244	1-126-967-11 1-137-189-91 1-126-964-11	FILM (17MF 0.18MF LOMF	10% 20% 5% 20% 5%	25V 16V 50V 50V 50V	R1250 R1251 R1252 R1253	1-216-089-91 1-216-065-00 1-216-089-91	METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 5% 47K 5% 4.7K 5% 47K 5%	1/10W 1/10W 1/10W 1/10W	
		_ 100 10, 00			J.0	JU V		1-216-065-00 1-216-089-91		4.7K 5%	1/10W	

R1255

1-216-065-00 METAL GLAZE 4.7K 5% 1-216-089-91 METAL GLAZE 47K 5%

1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1256 R1257 R1258 R1259	1-216-025-91 1-216-025-91 1-216-089-91 1-216-065-00	METAL GLAZE 100 5% METAL GLAZE 100 5% METAL GLAZE 47K 5% METAL GLAZE 4.7K 5%	6 1/10W 6 1/10W	C023 C024 C025 C026 C027	1-164-004-11	CERAMIC CHIP 0.22MF CERAMIC CHIP 0.22MF	10% 25V 10% 25V 25V 25V 16V
R1260 R1261 R1262 R1263	1-216-089-91 1-216-065-00 1-216-089-91 1-216-065-00	METAL GLAZE 47K 5% METAL GLAZE 47K 5% METAL GLAZE 47K 5% METAL GLAZE 47K 5%	6 1/10W 6 1/10W 6 1/10W	C028 C032 C042 C072	1-125-964-11 1-163-185-00	ELECT 10MF CERAMIC CHIP 150PF CERAMIC CHIP 1MF	20% 50V 5% 50V 16V 20% 16V
R1264 R1265 R1266 R1267 R1268	1-216-089-91 1-216-065-00 1-216-089-91 1-216-065-00 1-216-295-91	METAL GLAZE 47K 5% METAL GLAZE 4.7K 5% METAL GLAZE 47K 5% METAL GLAZE 4.7K 5% METAL GLAZE 0 5%	5 1/10W 6 1/10W 5 1/10W	C103 C104 C105			5% 50V 10% 25V 20% 16V 20% 50V
R1269 R1270 R1271 R3201	1-216-295-91 1-216-033-00 1-216-033-00 1-216-689-11	METAL GLAZE 220 5% METAL GLAZE 220 5% METAL GLAZE 39K 5%	5 1/10W 5 1/10W 5 1/10W	C106	1-124-927-11 1-126-933-11	(KV-28WS3A/28WS3D/28WS3 ELECT 100MF	20% 50V E/28WS3K/28WS3U) 20% 16V (KV-28WS3B) 20% 16V
R3202	1-216-228-00		•	C120	1-126-934-11 1-163-031-11		20% 16V 50V
R3204 R3205 R3206 R3207 R3208	1-216-025-91 1-216-025-91 1-216-033-00 1-216-033-00 1-216-025-91	METAL GLAZE 100 5% METAL GLAZE 220 5%	5 1/10W 5 1/10W 5 1/10W	C201 C202 C203 C204	1-163-078-11 1-163-078-11	CERAMIC CHIP 0.033MF	10% 25V 10% 25V 10% 16V 10% 16V
R3209 R3210 R3211	1-216-025-91 1-216-085-00 1-208-854-11	METAL GLAZE 33K 5%		C205 C206	1-126-964-11 1-164-161-11	CERAMIC CHIP 0.0022MF (KV-28WS3A/28WS3B/28WS3	
	< CRY	STAL >		C207	1-137-613-11	FILM 0.0018MF (KV-28WS3A/28WS3B/28WS3	2% 100V D/28WS3E/28WS3K)
X3201	1-579-125-11	VIBRATOR, CERAMIC		C208 C209		CERAMIC CHIP 0.47MF CERAMIC CHIP 0.47MF	10% 16V 10% 16V
*****		************		C210 C211 C212		CERAMIC CHIP 0.47MF CERAMIC CHIP 0.47MF	10% 16V 10% 16V 10% 16V
		A BOARD, COMPLETE (KV-		C212		CERAMIC CHIP 0.47MF	10% 16V 10% 16V
		A BOARD, COMPLETE (KV-		C214 C215	1-126-967-11 1-126-967-11	ELECT 47MF	20% 50V 20% 50V
		****************** A BOARD, COMPLETE (KV-		C218 C219	1-163-809-11 1-163-809-11	CERAMIC CHIP 0.047MF CERAMIC CHIP 0.047MF	10% 25V 10% 25V
	*A-1632-336-A	A BOARD, COMPLETE (KV-	·28WS3U)	C220 C221	1-124-925-11 1-124-925-11		20% 50V 20% 50V
	4-202-373-01	SPACER, INSULATING SPRING, IC SCREW (M3X10), P, SW (·+)	C222 C223 C224	1-107-823-11 1-107-823-11	CERAMIC CHIP 0.47MF CERAMIC CHIP 0.47MF CERAMIC CHIP 0.47MF	10% 16V 10% 16V 10% 16V
	< CAF	PACITOR >		C225 C226	1-163-011-11	CERAMIC CHIP 0.47MF CERAMIC CHIP 0.0015MF	10% 16V 10% 50V
C001 C002 C004	1-163-117-00	CERAMIC CHIP 100PF CERAMIC CHIP 100PF CERAMIC CHIP 0.22MF	5% 50V 5% 50V 25V	C227 C228 C229	1-163-011-11 1-124-925-11 1-124-925-11		10% 50V 20% 50V 20% 50V
C007 C008		CERAMIC CHIP 100PF CERAMIC CHIP 100PF	5% 50V 5% 50V	C230	1-136-177-00	(KV-28WS3A/28WS3B/28WS3	5% 50V D/28WS3E/28WS 3 K)
C009		CERAMIC CHIP 100PF	5% 50V	C231	1-136-177-00	(KV-28WS3A/28WS3B/28WS3	
C010 C012 C014	1-163-117-00	CERAMIC CHIP 100PF CERAMIC CHIP 100PF CERAMIC CHIP 100PF	5% 50V 5% 50V 5% 50V	C232	1-164-182-11	CERAMIC CHIP 0.0033MF (KV-28WS3A/28WS3B/28WS3	10% 50V D/28WS3E/28WS3K)
C014	1-163-117-00		5% 50V	C233	1-163-007-11	CERAMIC CHIP 680PF (KV-28WS3A/28WS3B/28WS3	10% 50V D/28WS3E/28WS3K)
C017 C018	1-164-222-11 1-124-925-11	CERAMIC CHIP 0.22MF ELECT 2.2MF	25V 20% 50V	C234 C235	1-126-964-11 1-126-964-11	ELECT 10MF	20% 50V 20% 50V
C019 C020	1-126-965-11		20% 50V 20% 50V 5% 50V	C236	1-126-933-11		20% 50V 20% 16V
C022		CERAMIC CHIP 0.1MF	10% 25V	C237	1-104-665-11	ELECT 100MF	20% 25V

REF.NO.	PART NO.	DESCRIPTION	<u>ON</u>		REMARK	REF.NO.	PART NO.	DESCRIPT	ION		REMARK
C238 C239	1-136-165-00 1-136-165-00	FILM	0.1MF 0.1MF	5% 5%	50V 50V	C582	1-163-109-00	CERAMIC CHI	P 47PF	5%	50V
C240 C242	1-104-665-11 1-164-004-11		100MF 0.1MF	20% 10%	25V 25V	C585 C586	1-126-967-11 1-164-232-11	CERAMIC CHI	47MF P 0.01MF	20% 10%	16V 50V
C243 C248	1-126-967-11 1-163-185-00		47MF 150PF	20% 5%	16V 50V	C587 C588 C589	1-164-232-11 1-164-232-11 1-164-232-11	CERAMIC CHI	P 0.01MF	10% 10%	50V 50V
C251	1-136-165-00	(KV-28WS3A/2	BWS3B/28WS3I 0.1MF	0/28WS3 5%	E/28WS3K) 50V	C590	1-164-232-11			10% 10%	50 v 50 v
C252	1-136-165-00		0.1MF	5%	50 v	C591 C592	1-164-232-11 1-164-232-11	CERAMIC CHIL	0.01MF	10% 10% 10%	50V 50V
C253 C256 - C258	1-126-967-11 1-126-967-11 1-126-934-11	ELECT	47MF 47MF 220MF	20% 20% 20%	16V 16V 16V	C593 C594	1-164-232-11 1-126-967-11	CERAMIC CHIE	0.01MF 47MF	10% 20%	50V 50V
C259 C260	1-107-714-11 1-163-019-00		10MF 0.0068MF	20% 10%	16V 50V	C681 C682	1-104-664-11 1-126-967-11	ELECT	47MF 47MF	20% 20%	25V 16V
C261 C262	1-163-019-00 1-126-967-11	CERAMIC CHIP		10%	50V	C683 C684	1-104-664-11 1-104-664-11	ELECT	47MF 47MF	20% 20%	25V 25V
C263 C264	1-126-967-11 1-126-967-11 1-136-165-00	ELECT FILM	47MF 47MF 0.1MF	20% 20% 5%	16V 16V 50V	C685	1-126-967-11 1-126-967-11		47MF	20%	16V
C265	1-136-165-00	FILM	0.1MF	5%	50V	C687 C688	1-126-967-11 1-126-967-11 1-126-967-11	ELECT	47MF 47MF 47MF	20% 20% 20%	16V 16V
C266 C267	1-163-009-11 1-163-009-11	CERAMIC CHIP	0.001MF 0.001MF	10% 10%	50 ∨ 50 ∨	C689 C690	1-164-232-11 1-126-967-11	CERAMIC CHIP		10% 20%	16V 50V 16V
C268 C269 C270	1-136-165-00 1-136-165-00 1-126-953-11	FILM	0.1MF 0.1MF	5% 5%	50V 50V	C691	1-126-967-11	ELECT	47MF	20%	16 V
C271	1-126-953-11	-	2200MF 2200MF	20% 20%	35V 35V	C692 C693 C1007	1-126-967-11 1-126-967-11	ELECT ELECT	47MF 47MF	20% 20%	16V 16V
C272 C273	1-126-953-11 1-126-953-11	ELECT	2200MF 2200MF	20% 20% 20%	35V 35V	C1007	1-163-038-91 1-126-967-11	CERAMIC CHIP ELECT	0.1MF 47MF	20%	25V 16V
C274 C275	1-136-165-00 1-136-165-00		0.1MF 0.1MF	5% 5%	50V 50V		< C11 < KV-	01 - C1132 FI 28WS3B/28WS3E	TTED ON > /28WS3U >		
C280 C281	1-126-967-11 1-126-940-11	ELECT	47MF 330MF	20% 20%	16V 16V	C1101 C1102	1-163-131-00 1-163-093-00	CERAMIC CHIP CERAMIC CHIP	390PF	5% 5%	50V 50V
C283 C284 C285	1-164-489-91 1-164-489-91	CERAMIC CHIP	.22MF	10% 10%	16V 16V	C1103 C1104	1-164-004-11 1-126-964-11	CERAMIC CHIP ELECT	0.1MF 10MF	10% 20%	25V 50V
C351	1-164-489-91			10% 20%	16V 50V	C1105	1-126-964-11	ELECT	10MF	20%	50 V
C352 C355	1-163-038-91 1-164-004-11		.1MF	10%	25V 25V	C1106 C1107 C1108	1-164-004-11 1-126-967-11 1-126-964-11	CERAMIC CHIP ELECT ELECT	47MF	10% 20%	25V 16V
C356 C357	1-164-004-11 1-164-004-11	CERAMIC CHIP (CERAMIC CHIP (.1MF	10% 10%	25V 25V	C1110 C1111	1-163-809-11 1-164-489-11	CERAMIC CHIP	10MF 0.047MF 0.22ME	20% 10% 10%	50V 25V 16V
C358 C359	1-164-004-11 1-164-004-11	CERAMIC CHIP (.1MF	10% 10%	25V 25V	C1112 C1113	1-164-489-11 1-163-137-00	CERAMIC CHIP	0.22MF	10%	16V
C360		CERAMIC CHIP (16V	C1114 C1115	1-126-967-11 1-164-161-11	ELECT	47MF	5% 20%	50V 16V
		(KV-28WS3A/28W 28WS3U)			/28WS3R/	C1116	1-126-967-11	ELECT	47MF	10% 20%	50V 16V
	1-164-004-11	CERAMIC CHIP 0	.1MF	10% (KV-	25V -28WS3B)	C1117 C1118	1-164-004-11 1-126-967-11	ELECT	0.1MF 47MF	10% 20%	25V 16V
C361 C362	1-163-038-91	CERAMIC CHIP O	.1MF		25V	C1119 C1120	1-163-137-00	CERAMIC CHIP	47MF 680PF	20% 5%	16V 50V
C364 C365	1-103-038-91 1-126-964-11 1-124-903-11		OMF :	20%	25V 50V	C1121	1-164-299-11		0.22MF	10%	25V
C366	1-164-005-11	CERAMIC CHIP 0	MF 2 .47MF	20%	50V 25V	C1122 C1123 C1124	1-126-967-11 1-164-004-11	CERAMIC CHIP	47MF 0.1MF	20% 10%	16V 25V
C367 C368	1-164-005-11	CERAMIC CHIP 0 CERAMIC CHIP 0	.47MF .47MF		25V 25V	C1125 C1126	1-164-004-11 1-107-823-11 1-163-117-00	CERAMIC CHIP CERAMIC CHIP :	0.47MF	10% 10% 5%	25V 16V 50V
C369 C370	1-124-903-11 1-164-005-11	ELECT 1: CERAMIC CHIP 0	MF 2 .47MF		50V 25V	C1127	1-163-117-00	CERAMIC CHIP	10 0 PF	5% 5%	50V
C372					50V	C1128 C1129	1-163-037-11 1-162-568-11	CERAMIC CHIP (CERAMIC CHIP (0.022MF	10%	25V 25V
C373 C374 C580	1-126-964-11 1-164-004-11 1-126-964-11	CERAMIC CHIP 0	.1MF 1		50V 25V 50V	C1130 C1131	1-124-903-11	ELECT CERAMIC CHIP (LMF	20% 10%	50v 25v
C581	1-124-902-00				50V	C1132	1-164-004-11	CERAMIC CHIP (.1MF	10%	25V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
REF.NO.		····	(LEIDFILLY				MF 20%	50V
		.37 - C1157 FITTED ON > .28WS3B/28WS3E/28WS3U >		C1560	1-124-902-00	ELECT 0.47		
C1133	1-126-967-11		20% 16V	C1561 C1562	1-104-760-11 1-163-117-91	CERAMIC CHIP 0.04 CERAMIC CHIP 100P	5%	50V 50V
C1134 C1135	1-126-964-11 1-163-125-00	ELECT 10MF CERAMIC CHIP 220PF	20% 50V 5% 50V	C1563 C1564	1-163-141-00 1-164-336-11	CERAMIC CHIP 0.00 CERAMIC CHIP 0.33		50V 25V
C1136 C1137		CERAMIC CHIP 0.1MF CERAMIC CHIP 12PF	10% 25V 5% 50V	C1567	1-124-903-11	ELECT 1MF	20%	50V
				C1568 C1569	1-164-344-11 1-163-003-11	CERAMIC CHIP 0.06 CERAMIC CHIP 330P		25V 50V
C1139 C1142	1-164-004-11 1-164-299-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.22MF	10% 25V 10% 25V	C1570	1-164-232-11	CERAMIC CHIP 0.01	MF 10%	50V
C1143 C1147	1-163-009-11 1-126-967-11	CERAMIC CHIP 0.001MF ELECT 47MF	10% 50V 20% 16V	C1571 C1585	1-164-004-11 1-124-903-11	CERAMIC CHIP 0.1M ELECT 1MF	F 10% 20%	25V 50V
C1148	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 5 0 V	C1586	1-124-902-00	ELECT 0.47	MF 20%	50V
C1150	1-163-038-91	CERAMIC CHIP 0.1MF	25V 25V	C1587 C1588	1-126-967-11 1-164-232-11	ELECT 47MF CERAMIC CHIP 0.01		50V 50V
C1151 C1152	1-163-038-91 1-126-967-11	CERAMIC CHIP 0.1MF ELECT 47MF	20% 16V	C1589	1-162-587-11	CERAMIC CHIP 0.03		25V
C1157	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C1590	1-164-346-11	CERAMIC CHIP 1MF		16V
C1501 C1502	1-163-141-00 1-124-903-11	CERAMIC CHIP 0.001MF ELECT 1MF	5% 50V 2 0 % 50V	C1591 C1593	1-163-141-00 1-126-964-11	CERAMIC CHIP 0.00 ELECT 10MF		50V 50V
C1504	1-124-122-11	ELECT 100MF	20% 50V	C2001 C2002	1-163-235-11 1-163-235-11	CERAMIC CHIP 22PF CERAMIC CHIP 22PF	5%	50V 50V
C1505 C1506	1-137-371-11 1-164-161-11	FILM 0.015MF CERAMIC CHIP 0.0022MF	5% 50V 10% 50V	C2002	1-164-222-11	CERAMIC CHIP 0.22		25V
C1507	1-106-383-00	MYLAR 0.047MF	10% 100V	C2004	1-164-222-11	CERAMIC CHIP 0.22		25V
C1508 C1509	1-137-423-11 1-126-964-11	MYLAR 0.15MF ELECT 10MF	10% 100V 20% 50V	C2005 C2007	1-163-038-91 1-126-965-11	CERAMIC CHIP 0.1M ELECT 22MF		25V 50V
C1510 C1511	1-130-789-00 1-126-941-11		5% 100V 20% 25V	C2008 C2010	1-164-222-11 1-163-038-91	CERAMIC CHIP 0.22 CERAMIC CHIP 0.1M		25V 25V
C1512	1-164-232-11		10% 50V	C2011	1-107-823-11	CERAMIC CHIP 0.47	MF 10%	16V
C1513	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C2012	1-164-004-11	CERAMIC CHIP 0.1M	F 10%	25V 25V
C1514 C1518	1-126-941-11 1-124-927-11	ELECT 470MF ELECT 4.7MF	20% 25V 20% 50V	C2013 C2014	1-164-004-11 1-163-141-00	CERAMIC CHIP 0.00	1MF 5%	50V
C1520	1-126-964-11	ELECT 10MF	20% 50V	C2016	1-164-222-11	CERAMIC CHIP 0.22	MF	25V
C1521 C1522	1-107-698-11 1-126-967-11		20% 25V 20% 50V	C2017 C2019	1-164-222-11 1-126-965-11	CERAMIC CHIP 0.22 ELECT 22MF		25V 50V
C1523	1-104-664-11	ELECT 47MF	20% 25V	C2020 C2024	1-164-346-11 1-163-117-00	CERAMIC CHIP 1MF CERAMIC CHIP 100P	F 5%	16V 50V
C1531 C1532	1-110-501-11 1-126-964-11	CERAMIC CHIP 0.33MF ELECT 10MF	10% 16V 20% 50V	C2025	1-163-117-00	CERAMIC CHIP 100P		50V
C1533	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	C2027	1-164-222-11	CERAMIC CHIP 0.22		25V
C1534 C1535		CERAMIC CHIP 0.33MF	10% 16V 10% 16V	C2031 C2032	1-163-031-11 1-126-933-11	ELECT 100M	F 20%	50V 16V
C1537 C1539		CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	25V 10% 25V	C2701 C2702	1-126-964-11 1-126-967-11			50V 16V
C1540	1-126-967-11		20% 50V	C2706	1-163-003-11	CERAMIC CHIP 330P	F 10%	50V
C1541	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	02.00				
C1542 C1543		CERAMIC CHIP 0.01MF CERAMIC CHIP 0.01MF	10% 50V 10% 50V			NNECTOR >		
C1544	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	CN0001 CN0002		PLUG, CONNECTOR 5 PIN, CONNECTOR 3P		
C1545	1-107-823-11	CERAMIC CHIP 0.47MF CERAMIC CHIP 0.1MF	10% 16V 25V	CN0101 CN0102		CONNECTOR, BOARD		
C1546 C1547	1-164-695-11	CERAMIC CHIP 0.0022MF	5% 50V	CN0102		CONNECTOR, BOARD		
C1548 C1549		CERAMIC CHIP 0.0047MF CERAMIC CHIP 0.0047MF	10% 50 V 10% 50 V	CN0104		CONNECTOR, BOARD		
C1550		CERAMIC CHIP 0.1MF	10% 25V	CN0105 CN0106		CONNECTOR, BOARD		
C1551	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	CN0107	1-695-297-11	CONNECTOR, BOARD	TO BOARD 20P	
C1552 C1553		CERAMIC CHIP 0.001MF CERAMIC CHIP 0.1MF	10% 50V 25V	CN0108		CONNECTOR, BOARD		
C1554		CERAMIC CHIP 0.1MF	25V	CN0109 CN0111		PIN, CONNECTOR 1P PIN, CONNECTOR 7P		
C1555	1-126-967-11		20% 50V	CN0113	*1-568-879-11	PIN, CONNECTOR 4P	1	
C1556 C1558		CERAMIC CHIP 0.001MF	20% 50V 5% 50V	CN0114 CN0115		PLUG, CONNECTOR 8 PIN, CONNECTOR 6P		
C1559		CERAMIC CHIP 0.0022MF	10% 50V					

The components identified by shading and marked if are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque : sont critiques pour la securite.

Ne les remplacer que par une piece portant le numero specifie.



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTIO	<u>N</u> .	REMARK
CN0151 CN0152		PIN, CONNECTOR 7P PIN, CONNECTOR 7P			< IC	>		
	*1-564-510-11	(KV-28WS3A/28WS3B/28WS3B PLUG, CONNECTOR 7P (KV-2	D/28WS3E/28WS3U) 28WS3K)	IC001 IC002		IC SDA30C164- IC TMS27PC020		
	< RF	DISTRIBUTOR >		IC072 IC201	8-759-348-87	IC ST24C16CB1 IC TDA6812-2M	GEG	
CP101	1-251-372-11	DISTRIBUTOR, RF		IC202	•	IC TDA2822M		
	< DIC	DDE >		IC251 IC261	8-759-190-89 8-759-190 - 89	IC TDA7265		
D001	8-719-027-82	DIODE MA3039H-TX		IC351 IC352		IC TDA8443B IC NJM2284M		
D003	8-719-914-42	DIODE DA204K		IC572		IC CXA1839Q-T	6	
D068		DIODE DAP202K DIODE DAP202K		TC601	0 750 510 60	TO DO100001		
D071	8-719-109-89	DIODE RD5.6ESB2		IC681 IC682	8-759-518-68 8-759-513-71	IC PQ12RF21 IC P005RF21		
D072	0 710 100 00	DIADE DDC (BADA		IC683	8-759-908-15	IC TL431CLP		
D073 D075		DIODE RD5.6ESB2 DIODE DAN202K		IC684 IC685	8-759-195-63 8-759-510-52			
D 07 7	8-719-914-43	DIODE DAN202K						
D 078 D 07 9		DIODE RD5.6ESB2 DIODE RD5.6ESB2		IC686	8-759-513-71			• •
בייטע	6-713-103-03	DIODE ND3.0E502		IC1001	8-752-869-17	IC CXP85112B-	WS3D/28WS3E/28WS3K/2 6220-4t.	28WS3U)
D101	8-719-982-27	DIODE MTZJ-33C		IC1101	8-759-251-58	IC SAA7283GP	(KV-28WS3B/28WS3E/28	3WS3U)
D201	8-719-914-42	DIODE DA204K (KV-28WS3A/28WS3B/28WS3D	1/28WG3E/28WG3E)	IC1501	8-759-192-71	IC STV9379		
D251	8-719-991-33	DIODE 1SS133T-77	7 BONDSB; BONDSK)	IC1531	8-752-068-39			
D252	8-719-9 91- 33	DIODE 1SS133T-77		IC2001	8-759-248-91	IC SDA9086-5		
D253	8-719-991-33	DIODE 1SS133T-77		IC2002 IC2003	8-759-337-48	IC SDA5273P-C: IC MB81C4256A	16-GEG -70PSZG	
D254	8-719-991-33	DIODE 1SS133T-77		IC2701	8-759-603-37		7 7 2 2 2 2	
D255 D256	8-719-914-43	DIODE DAN202K DIODE 1SS133T-77			, TP	BLOCK >		
D257		DIODE 1SS133T-77						
D258	8-719-991-33	DIODE 1SS133T-77		IFB101	1-473-191-11	IF BLOCK (KV-2	28WS3A/28WS3D/28WS3E	1)
D259	8-719-991-33	DIODE 1SS133T-77				IF BLOCK (KV-2		
D260 D261	8-719-991-33 8-719-991-33	DIODE 1SS133T-77 DIODE 1SS133T-77		!	1-473-190-11	IF BLOCK (KV-2	!8WS3U)	
D262		DIODE 1SS133T-77			< COI	L >		
D263	8-719-914-43	DIODE DAN202K		L001	1-408-421-00	THOUGHOD	1.0.0	
D265	8-719-914-42	DIODE DA204K		L101	1-408-421-00		100UH 22UH	
D351 D581		DIODE 1SS133T-77 DIODE DAN202K		L102	1-408-413-00		22UH	
D1001		DIODE DAP202K		L201 L1002	1-407-500-00 1-408-397-00	INDUCTOR INDUCTOR	4.7MMH 1UH	
D1002	8-719-914-43	DIODE DAN202K		L1101				
D1003	8-719-914-43	DIODE DAN202K		PIIOI	1-412-004-31	INDUCTOR CHIP	(KV-28WS3B/28WS3E/2	8WS3U)
D1101 D1102	8-719-914-43 8-719-820-71	DIODE DAN202K (KV-28WS3B, DIODE 1SV214 (KV-28WS3B/	/28WS3E/28WS3U)	L1102	1-408-419-00	INDUCTOR	68UH	,
D1503	8-719-908-03	DIODE GP08D	/ 0.0000 / 1.0000	L1103	1-408-419-00	INDUCTOR	(KV-28WS3B/28WS3E/28	BWS3U)
D1504	8-719-110-41	DIODE RD15ESB2					(KV-28WS3B/28WS3E/2	8WS3U)
D1505		DIODE DAN202K		L1501	1-412-524-11	INDUCTOR	8.2UH	
D1510	8-719-914-42			L1531	1-412-537-31	INDUCTOR	100UH	
D1511 D1530		DIODE MTZJ-3.6A DIODE DAN204K		L2001 L2002	1-410-674-31	INDUCTOR FERRITE BEAD I	82UH NDUCTOR 1 1UU	
							MDOCTOR 1.10II	
D1533 D1534	8-719-400-75 8-719-914-43	DIODE DAN202K			< IC 1	LINK >		
D1536	8-719-105-82	DIODE RD5.1M-B2		PS681 🛦	1-532-637-91	LINK, IC (ICP-	N25) 1.0A	
D1539 D1542	8-719-914-42 8-719-923-60	DIODE DA204K DIODE MTZJ-T-77-9.1A			< TRAN	NSISTOR >		
D1543	8-719-914-42	DTODE DAZOAR		0000			11.60 0	
D1544	8-719-914-42	DIODE DA204K	l i	Q0 0 2 Q0 0 5	8-729-027-59	TRANSISTOR 2SA TRANSISTOR DTC	1102-G 144EKA-T146	
D1545	8-719-914-42	DIODE DA204K		Q0 0 6	8-729-920-74	TRANSISTOR 2SC	2412K-OR	
D2001 D2004	8-719-036-58 8-719-914-43	DIODE MA3030-H(TX) DIODE DAN202K	:	Q007 Q008	8-729-027-59 8-729-920-74	TRANSISTOR DTC TRANSISTOR 2SC	144EKA-T146 2412K-OR	
D2701								
D4/01	8-719-914-44	DIONE NWLTANK		Q102	8-729-027-52	TRANSISTOR DTC	124EKA-T146	



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>		REMARK
Q103 Q106	8-729-027-52 8-729-821-00	TRANSISTOR DTC124EKA-T TRANSISTOR 2SA1207 TRANSISTOR 2SC2551-0 TRANSISTOR DTC144EKA-T	146	JR202	1-216-295-91	METAL GLAZE	0 (KV-2	5% 28WS3A	1/10W /28WS3D/28WS3K)
Q107	8-729-255-12	TRANSISTOR 2SC2551-0	146	JR279	1-216-295-91		0	5%	1/10W
Q110	8-729-027-59	TRANSISTOR DTC144EKA-T	146	JR280 JR1013	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W
Q203	8-729-920-74	TRANSISTOR DTC144EKA-T TRANSISTOR 2SC2412K-QR (KV-28WS3A/28WS3B/28WS TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SA1162-G TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 2SC2412K-QR (KV-28WS) TRANSISTOR 1SC2412K-QR (KV-28WS)		021013	1-210-293-91	MEIAL GLAZE	U	20	1/10W
		(KV-28WS3A/28WS3B/28WS	3D/28WS3E/28WS3K)	JR1501	1-216-295-91		0	5%	1/10W
Q252 Q253	8-729-920-74	TRANSISTOR 2SC2412K-QR		JR2002	1-216-295-91	METAL GLAZE	0	5%	1/10W
Q254	8-729-920-74	TRANSISTOR 25C2412K-QR		R001	1-216-025-91	METAL GLAZE	100	5%	1/10W
				R002	1-216-025-91	METAL GLAZE	100	5%	1/10W
Q255	8-729-920-74	TRANSISTOR 2SC2412K-QR		R003	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
Q256 Q257	8-729-920-74	TRANSISTOR 25C2412K-QR TRANSISTOR 25C2412K-QR		R004	1-216-049-91 1-216-049-91		1K 1K	5% 5%	1/10W 1/10W
Q258	8-729-920-74	TRANSISTOR 2SC2412K-QR		1.000	1 210 045 51	FELTAL GLADE	211	J*6	1/10W
Q281	8-729-920-74	TRANSISTOR 2SC2412K-QR		R007	1-216-073-00		10K	5%	1/10W
2000	0 700 000 74			R008	1-216-049-91		1K	5%	1/10W
Q282 Q351	8-729-920-74	TRANSISTOR 2SC2412K-QR		R009	1-216-057-00 1-216-049-91		2.2K	5% 5%	1/10W
Q351 Q352	8-729-216-22	TRANSISTOR 2SA1162-G		R010	1-216-049-91	METAL GLAZE	1K 1K	5% 5%	1/10W 1/10W
Q571	8-729-920-74	TRANSISTOR 2SC2412K-QR				С		J.0	1/1011
Q5 81	8-729-920-74	TRANSISTOR 2SC2412K-QR		R013	1-216-049-91		1K	5%	1/10W
0001	0 500 030 65	ED3.VGTGEOD 0GD030/**		R014	1-216-049-91		1K	5%	1/10W
Q681 Q1001	8-729-032-05	TRANSISTUR ZSDZ396H		R016	1-216-045-00 1-216-049-91		680 1K	5% 5%	1/10W 1/10W
Q1105	8-729-920-74	TRANSISTOR 2SC2412K-OR		R018	1-216-041-00		470	5% 5%	1/10W 1/10W
		(KV-28WS	3B/28WS3E/28WS3U)				2,0		1, 2011
Q1106	8-729-920-74	TRANSISTOR 2SC2412K-QR		R020	1-216-049-91		1K	5%	1/10W
		(KV-28WS	3B/28WS3E/28WS3U)	R021	1-216-065-00		4.7K	5%	1/10W
01107	8-729-920-74	TRANSTITOR 25C2412K-OR		R025	1-216-049-91 1-216-089-91	METAL GLAZE	1K 47K	5% 5%	1/10W 1/10W
Q1107	0 723 320 74	(KV-28WS	3B/28WS3E/28WS3U)	R029	1-216-049-91		1K	5%	1/10W
Q1108	8-729-920-74	TRANSISTOR 2SC2412K-QR	- (000-)						
Q1505	9-720-021-45	(KV-28WS.	3B/28WS3E/28WS3U)	R030 R031	1-216-025-91 1-216-041-00	METAL GLAZE METAL GLAZE	100	5% 5%	1/10W
Ø1202	0-123-331-43	TRANSISTOR IRF014		R031	1-216-041-00		470 10K	5% 5%	1/10W 1/10W
Q1506	8-729-920-74	TRANSISTOR IRF614 TRANSISTOR 2SC2412K-QR TRANSISTOR 2SA1162-G TRANSISTOR DTC144EKA-T: TRANSISTOR 2SA1162-G TRANSISTOR DTC144EKA-T:		R033	1-216-049-91	METAL GLAZE	1K	5%	1/10W
Q1507	8-729-216-22	TRANSISTOR 2SA1162-G		R034	1-216-057-00		2.2K	5%	1/10W
Q1508	8-729-027-59	TRANSISTOR DTC144EKA-T	146	2025	4 016 055 00				4.44
Q1510 Q1511	8-129-210-22	TRANSISTUR ZSALI6Z-G	146	R035 R036	1-216-057-00 1-216-081-00	METAL GLAZE METAL GLAZE	2.2K 22K	5% 5%	1/10W 1/10W
X-3+-	0 125-021-55	MANUFACTOR DICTIONAL.	140	R037	1-216-073-00	METAL GLAZE	10K	5%	1/10W 1/10W
Q1512	8-729-027-59	TRANSISTOR DTC144EKA-T: TRANSISTOR 2SA1162-G TRANSISTOR 2SA1162-G	146	R038	1-216-073-00	METAL GLAZE	10K	5%	1/10W
Q1531		TRANSISTOR 2SA1162-G		R047	1-216-101- 0 0	METAL GLAZE	150K	5%	1/10W
Q1532 Q1533		TRANSISTOR 2SA1162-G TRANSISTOR 2SA1162-G		R048	1-216-065-00	Memar Crage	4.7K	5%	1 /1 Ow
Q1544		TRANSISTOR 2SC2412K-QR		R049	1-216-089-91	METAL GLAZE	1K	5%	1/10W 1/10W
-				R050	1-216-073-00		10K	5%	1/10W
Q1545		TRANSISTOR 2SC2412K-QR		R051	1-216-295-91	METAL GLAZE	0	5%	1/10W
Q1547 Q1548		TRANSISTOR 2SA1162-G TRANSISTOR 2SA1162-G		R052	1-216-295-91	METAL GLAZE	0	5%	1/10W
Q1549		TRANSISTOR 2SC2412K-OR		R054	1-216-041-00	METAL GLAZE	470	5%	1/10W
Q2001		TRANSISTOR 2SC2412K-QR		R062	1-216-049-91		1K	5%	1/10W
				R067	1-216-043-91	METAL GLAZE	560	5%	1/10W
Q2002 Q2004	8-729-920-74		uic.	R068	1-216-043-91		560	5%	1/10W
Q2004 Q2005		TRANSISTOR DTC124EKA-TI TRANSISTOR 2SC2412K-QR	140	R069	1-216-037-00	METAL GLAZE	330	5%	1/10W
Q2006	8-729-027-59		L46	R072	1-216-033-00	METAL GLAZE	220	5%	1/10W
Q2008	8-729-027-52	TRANSISTOR DTC124EKA-T		R073	1-216-033-00	METAL GLAZE	220	5%	1/10W
00701				R074	1-216-049-91		1K_	5%	1/10W
Q2701	8-729-920-74	TRANSISTOR 2SC2412K-QR		R077 R083	1-216-059-00 1-216-049-91		2.7K		1/10W
	< RES	ISTOR >		LVOJ	1-210-043-31	MELAU GUAZE	1K	5%	1/10W
TD001			4 44 0	R085	1-216-049-91		1K	5%	1/10W
JR001 JR002	1-216-295-91		1/10W	R101	1-216-025-91		100	5%	1/10W
JR101	1-216-295-91 1-216-295-91		1/10W 1/10W	R102 R105	1-216-025-91 1-216-073-00	METAL GLAZE	100 10K	5% 5%	1/10W 1/10W
JR102	1-216-295-91		1/10W	R108	1-216-081-00		22K	5%	1/10W 1/10W
JR201	1-216-295-91	METAL GLAZE 0 5%	1/10W						
		(KV-28WS3	BA/28WS3D/28WS3K)	R109	1-216-113-00		470K		1/10W
			İ	R110 R111	1-216-079-00 1-216-089-91		18K 47K	5% 5%	1/10W 1/10W
			1	*****	- 520 007 71	GHUUH	# 1 4L	J.0	1/ 1/11

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	REF.NO.	PART NO.	DESCRIPTION		REM	<u>IARK</u>	REF.NO.	PART NO.	DESCRIPTI	ON		REMARK
	R115	1-216-073-00	METAL GLAZE 10K	5%	1/10W		R275	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
	R116	1-215-901-00	METAL OXIDE 33K	5%	2W F		R276	1-216-073-00	METAL GLAZE	10K	5%	1/10W
	R121	1-216-081-00	METAL GLAZE 22K	5%	1/10W		R277	1-216-073-00	METAL GLAZE	10K	5%	1/10W
	R124	1-216-061-00	METAL GLAZE 3.3		1/10W		R278	1-216-103-91	METAL GLAZE	180K	5%	1/10W
	R125	1-216-065-00			1/10W		R279	1-216-103-91	METAL GLAZE	180K		1/10W
	R127 R130	1-216-295-91		5%	1/10W		R280		METAL GLAZE	1K	5%	1/10W
	KIO	1-216-295-91	METAL GLAZE 0	5%	1/10W		R282 R284	1-216-049-91 1-216-041-00		1K 470	5% 5%	1/10W
	R131	1-216-295-91	METAL GLAZE 0	5%	1/10W		1/201	1-210-041-00	MEINE GENEE	470	2%	1/10W
	R201	1-216-655-11		K 0.50%			R285	1-216-075-00		12K	5%	1/10W
7.	R202	1-216-657-11		K 0.50%	1/10W	İ	R286	1-216-075-00		12K	5%	1/10W
55	R203 R204	1-216-655-11 1-216-657-11		K 0.50% K 0.50%			R287	1-216-041-00	METAL GLAZE	470	5%	1/10W
	RZV4	1-220-05/-11	METAG CHIP 1.0	n 0.50%	1/10M		R288 R289	1-216-065-91 1-216-357-00		4.7K 4.7	5% 5%	1/10W 1W F
	R205	1-216-067-00	METAL GLAZE 5.6	K 5%	1/10W		11205	1 210 337 00	MEIAH OAIDE	4./	2%	TM I
			(KV-28WS3A/28WS3B			WS3K)	R290	1-216-357-00		4.7	5%	1W F
	R206	1-216-081-00			1/10W		R291	1-216-049-91		1K	5%	1/10W
	R207 R208	1-216-057-00 1-216-081-00		₹ 5% 5%	1/10W 1/10W		R292 R293	1-216-049-91		1K	5%	1/10W
	1.200	1 210 001 00	MBIAD GUAGE ZZK	J-6	1/1011	3	R293	1-216-033-00 1-216-033-00		220 220	5% 5%	1/10W 1/10W
	R209	1-216-057-00		K 5%	1/10W			1 210 055 00	MEIAH GRANE	. 220	J-0	1/10W
	R210	1-247-734-11		5%	1/2W		R295	1-216-073-00	METAL GLAZE	10K	5%	1/10W
	R211 R212	1-247-734-11		5% 5%	1/2W	!	R296	1-216-073-00		10K	5%	1/10W
	R212	1-216-025-91 1-216-025-91		5% 5%	1/10W 1/10W		R297 R298	1-216-063-91		3.9K	5%	1/10W
	11213	1 210 025-51	MEIAH GUANB 100	J-0	1/10#		R299	1-216-063-91 1-216-053-00		3.9K 1.5K	5% 5%	1/10W 1/10W
	R214	1-216-025-91		5%	1/10W			1 110 033 00	mind onnan	1.51	J-0	1/104
	-040		(KV-28WS3A/28WS3B,			WS3K)	R351	1-216-033-00		220	5%	1/10W
	R218 R219	1-249-389-11 1-249-389-11	CARBON 4.7 CARBON 4.7	5% 5%	1/4W F 1/4W F		R352	1-216-033-00		220	5%	1/10W
	R221	1-216-091-00	METAL GLAZE 56K	5% 5%	1/4W F 1/10W		R353 R354	1-216-033-00 1-216-065-00	METAL GLAZE	220 4.7K	5% 5%	1/10W 1/10W
			(KV-28WS3A/28WS3B,			NS3K)	R355	1-216-055-00	METAL GLAZE		5%	1/10W
						,						1, 10"
	R222 R241	1-249-389-11	CARBON 4.7	5%	1/4W F		R356	1-216-055-00		1.8K		1/10W
	V74T	1-216-065-00	METAL GLAZE 4.78 (KV-28WS3A/28WS3B,	. 5% '28wg3n/:	1/10W 28W53E/28W	AGSK)	R357 R358	1-216-055-00 1-216-065-00	METAL GLAZE METAL GLAZE	1.8K		1/10W
	R242	1-216-073-00	METAL GLAZE 10K	5%	1/10W	ibsk)	R359	1-216-295-91		4.7K 0	5% 5%	1/10W 1/10W
	R243	1-216-073-00	METAL GLAZE 10K	5%	1/10W					-		28WS3K/28WS3U)
	R244	1-216-073-00	METAL GLAZE 10K	5%	1 /1 014		7 2.60	1 016 005 01		_		
	R244			5% : 5%	1/10W 1/10W		R360	1-216-295-91	METAL GLAZE	0	5%	1/10W
			(KV-28WS3A/28WS3B/	28WS3D/2	28WS3E/28W	rsak)	R361	1-216-295-91	METAL GLAZE	0	5%	(KV-28WS3B) 1/10W
	R247		METAL GLAZE 100F	5%	1/10W	,						28WS3K/28WS3U)
	R248	1-216-055-00	METAL GLAZE 1.8F	5%	1/10W		R362	1-216-295-91	METAL GLAZE	0	5%	1/10W
	R249	1-216-089-91	METAL GLAZE 47K	5%	1/10W							(KV-28WS3B)
	R250	1-216-065-91		5%	1/10W		R363	1-216-295-91	METAL GLAZE	0	5%	1/10W
	R251	1-216-049-91	METAL GLAZE 1K	5%	1/10W						SWS3E/	28WS3K/28WS3U)
	R253 R257	1-216-049-91		5% 5%	1/10W		R364	1-216-295-91	METAL GLAZE	0	5%	1/10W
	R23 /	1-216-041-00	METAL GLAZE 470	5%	1/10W		R365	1 214 205 01				28WS3K/28WS3U)
	R258	1-216-075-00		5%	1/10W		2000	1-216-295-91	METAL GLAZE (KV-28WS3A/28	0 WS3D/28	-5% ?ws3re/	1/10W 28WS3K/28WS3U)
	R259	1-216-075-00	METAL GLAZE 12K	5%	1/10W				(11.1 201103217 20	11030/20	MOJE	20403172040307
	R260	1-216-041-00			1/10W		R366	1-216-295-91		0	5%	1/10W
	R261 R262	1-216-065-91 1-216-357-00	METAL GLAZE 4.7K METAL OXIDE 4.7		1/10W 1W F	Ì	D267	1 216 205 01	(KV-28WS3A/28			28WS3K/28WS3U)
	1602	1-210-337-00	MEIAH VALUE 4.7	24	1W F		R367	1-216-295-91	METAL GLAZE	0	5%	1/10W (KV-28WS3B)
	R263	1-216-357-00		5%	1W F		R368	1-216-295-91	METAL GLAZE	0	5%	1/10W
	R264	1-216-075-00			1/10W							(KV-28WS3B)
	R265 R266	1-216-079-91 1-216-065-00			1/10W 1/10W		D260	1 216 022 00	Ammar cr	202	F0.	
	R267	1-216-073-00			1/10W 1/10W		R369 R371	1-216-033-00 1-216-061-00	METAL GLAZE		5% 5%	1/10W
					-,		R372	1-216-043-91	METAL GLAZE		5%	1/10W 1/10W
	R268		METAL GLAZE 10K		1/10W		R373	1-216-097-91	METAL GLAZE		5%	1/10W
	R269 R270		METAL GLAZE 390		1/10W		R375	1-216-081-00	METAL GLAZE		5%	1/10W
	R270 R271		METAL GLAZE 2.2K METAL GLAZE 2.2K		1/10W 1/10W		R376	1_216_001 00	MOMAI CIAPP	າດນ	E0,	1 /10W
	R272	1-216-025-91			1/10W				METAL GLAZE METAL GLAZE		5% 5%	1/10W 1/10W
						1		1-216-033-00	METAL GLAZE		5%	1/10W
			METAL GLAZE 10K		1/10W	1	R379	1-216-025-91	METAL GLAZE	100	5%	1/10W
,	R274	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	:	R380	1-216-049-91	METAL GLAZE	1K	5%	1/10W



REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTIO	N		REMARK
								-		
R384 R385	1-216-022-00 1-216-022-00		75 5% 75 5%	1/10W 1/10W	R1125 R1132	1-216-097-91 1-216-097-91	METAL GLAZE METAL GLAZE	100K 100K	5% 5%	1/10W 1/10W
R386	1-216-022-00	METAL GLAZE	75 5%	1/10W	R1133	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R575	1-216-033-00		220 5%	1/10W	R1144 R1145	1-216-049-91 1-216-001-00	METAL GLAZE METAL GLAZE	1K 10	5% 5%	1/10W 1/10W
R576	1-216-033-00	METAL GLAZE	220 5%	1/10W	KII45	1-216-001-00	METAL GLAZE	10	3%	1/10W
R578	1-216-049-91		1K 5%	1/10W	R1146	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R579 R580	1-216-049-91 1-216-049-91		1K 5% 1K 5%	1/10W 1/10W	R1147 R1148	1-216-039-00 1-216-049-91	METAL GLAZE METAL GLAZE	390 1K	5% 5%	1/10W 1/10W
R581	1-216-685-11	METAL CHIP	27K 0.	50% 1/10W	R1149	1-216-001-00	METAL GLAZE	10	5%	1/10W
R582	1-216-047-91	METAL GLAZE	820 5%	1/10W	R1150 R1151	1-216-039-00 1-216-049-91	METAL GLAZE METAL GLAZE	390 1K	5% 5%	1/10W 1/10W
R583	1-216-049-91		1K 5%	1/10W						
R584 R587	1-216-065-00		4.7K 5% 47 5%	1/10W 1/10W	R1501 R1502	1-216-069-00 1-216-659-11	METAL GLAZE METAL CHIP	6.8K 2.2K	5% 0.50%	1/10W 1/10W
R588	1-216-017-91 1-216-059-00		2.7K 5%	1/10W 1/10W	R1502	1-216-039-11	METAL CLAZE	2.2K	5%	1/10W
R681	1-216-471-11		27 5%	3W F	R1504	1-216-025-91	METAL GLAZE	100	5%	1/10W
R682	1-249-407-11	CARBON	150 5%	1/4W	R1505	1-216-025-91	METAL GLAZE	10 0	5%	1/10W
R683	1-216-041-00		470 5%	1/10W	R1506	1-216-025-91	METAL GLAZE	10 0	5%	1/10W
R684	1-249-419-11		1.5K 5%	1/4W	R1509 R1512	1-216-065-00 1-216-079-00	METAL GLAZE METAL GLAZE	4.7K 18K	5% 5%	1/10W 1/10W
R685 R1001	1-247-807-31 1-216-049-91		100 5% 1K 5%	1/4W 1/10W	R1512	1-216-667-11	METAL CHIP	4.7K		1/10W 1/10W
					R1514	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1003	1-216-295-91		0 5% S3D/28WS	1/10W 3E/28WS3K/28WS3U)	R1515	1-215-455-00	METAL	27K	1%	1/4W
R1005	1-216-049-91		1K 5%	1/10W	R1516	1-249-385-11	CARBON	2.2	5%	1/4W F
R1006	1-216-049-91		1K 5%		R1517 R1519	1-216-371-00	METAL OXIDE	1.5 120	5% 5%	2W F 3W F
R1007	1-216-033-00	METAL GLAZE	220 5%	1/10W	R1519	1-216-475-11 1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R1008	1-216-025-91		100 5%						F0.	
R1009 R1017	1-216-025-91 1-216-033-00		100 5% 220 5%		R1521 R1522	1-216-073-00 1-216-065-00	METAL GLAZE METAL GLAZE	10K 4.7K	5% 5%	1/10W 1/10W
R1018	1-216-033-00		220 5%		R1523	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R1019	1-216-065-00	METAL GLAZE	4.7K 5%	1/10W	R1524 R1526	1-216-109-00 1-216-049-91	METAL GLAZE	330K 1K	5% 5%	1/10W 1/10W
R1020	1-216-065-00	METAL GLAZE	4.7K 5%		RIJ20	1-210-049-91	WEIGH GROWE	TV		
R1022	1-216-073-00		10K 5%		R1527 R1529	1-216-049-91 1-216-073-00	METAL GLAZE METAL GLAZE	1K 10K	5% 5%	1/10W 1/10W
R1023 R1024	1-216-049-91 1-216-049-91		1K 5%		R1529	1-216-073-00	METAL GLAZE	10K	5%	1/10W 1/10W
R1025	1-216-049-91		1K 5%		R1532	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W
R1026	1-216-049-91	METAL GLAZE	1K 5%	1/10W	R1534	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R1027		METAL GLAZE	1K 5%	1/10W	R1539	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1028	1-216-049-91	METAL GLAZE	1K 5%	1/10W	R1540 R1541	1-216-045-00 1-216-037-00	METAL GLAZE METAL GLAZE	680 330	5% 5%	1/10W 1/10W
	< R1	101 - R1151 FITT	ED ON >		R1542	1-216-182-00	METAL GLAZE	220	5%	1/8W
		-28WS3B/28WS3E/2			R1543	1-216-033-00	METAL GLAZE	220	5%	1/10W
R1101	1-216-025-91	METAL GLAZE	100 5%	1/10W	R1544	1-216-033-00	METAL GLAZE	220	5%	1/10W
R1102	1-216-049-91	METAL GLAZE	1K 5%		R1545	1-216-673-11		8.2K		1/10W
R1103 R1104			2.2 5% 33K 5%	•	R1546 R1547	1-216-025-91 1-216-025-91		100 100	5% 5%	1/10W 1/10W
R1105			1.8K 5%		R1548	1-216-295-91		0	5%	1/10W
R1106	1-216-049-01	METAL GLAZE	1K 5%	1/10W	R1549	1-216-045-91	METAL GLAZE	680	5%	1/10W
R1107	1-216-049-91		1K 5%		R1553	1-216-025-91	METAL GLAZE	10 0	5%	1/10W
R1108	1-216-121-91	METAL GLAZE	1M 5%		R1554	1-216-025-91		100	5%	1/10W
R1 10 9 R1 1 10			1M 5% 10 5%		R1558 R1561	1-216-025-91 1-216-081-00		100 22K	5% 5%	1/10W 1/10W
R1111 R1112			100 5% 100 5%		R1562 R1563	1-216-113-00 1-216-077-00	METAL GLAZE METAL GLAZE	470K 15K	5% 5%	1/10W 1/10W
R1113	1-216-117-00	METAL GLAZE	680K 5%	1/10W	R1564	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R1114 R1115			22 5% 1M 5%		R1565 R1568	1-216-282-00 1-216-103-91	METAL GLAZE	3.3M 180K		1/8W 1/10W
	1-510-151-31		TH 3%					TOAV	J70	
R1116 R1117	1-216-081-00		22K 5% 10K 5%		R1569	1-216-073-00		10K	5% / תגאשפי	1/10W 28WS3E/28WS3U)
R1117	1-216-073-00 1-216-134-00		2.2 5%		R1570	1-216-095-00		82K	5%	1/10W
R1119	1-216-133-00	METAL GLAZE	3.3M 5%	1/10W	R1571	1-216-059-00		2.7K	5%	1/10W
R1124	1-216-089-91	METAL GLAZE	47K 5%	1/10W						

			A IF (KV-28WS3A/28WS3D/28WS3E)						
REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
R1572	1-216-073-00	METAL GLAZE 1 (KV-28WS3A/28WS	OK 5% 3B/28WS3D,	1/10W /28WS3E/28WS3U)	R2033 R2034	1-216-081-00 1-216-081-00	METAL GLAZE 22K METAL GLAZE 22K	5% 1/10 5% 1/10	
R1573 R1574 R1575 R1576 R1577	1-216-089-91 1-216-053-00 1-216-085-00 1-216-065-00 1-216-089-91	METAL GLAZE 1 METAL GLAZE 3 METAL GLAZE 4	7K 5% .5K 5% 3K 5% .7K 5% 7K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R2035 R2036 R2037 R2038 R2039	1-216-049-91		5% 1/10 5% 1/10 5% 1/10 5% 1/10 5% 1/10)W)W
R1578 R1579 R1580	1-216-085-00 1-216-057-00 1-215-867-00	METAL GLAZE 2 (KV-28WS3A/28WS METAL OXIDE 4	70 5%	1W F	R2040 R2701 R2702 R2703	1-216-125-00 1-216-081-00 1-216-081-00 1-216-081-00	METAL GLAZE 22K METAL GLAZE 22K	5% 1/10 5% 1/10 5% 1/10 5% 1/10	W W
R1581 R1582 R1583 R1584 R1585 R1586	1-216-065-00 1-216-089-91 1-216-081-00 1-208-822-11 1-216-073-00 1-208-806-11	METAL GLAZE 4 METAL GLAZE 2 METAL CHIP 4 METAL GLAZE 1	OK 5%	1/10W 1/10W 1/10W 1/10W 1/10W 1/10W	R2704 R2705 R2706 R2707 R2708 R2713	1-216-073-00	METAL GLAZE 10K METAL GLAZE 10K METAL GLAZE 0	5% 1/10 5% 1/10 5% 1/10 5% 1/10 5% 1/10 5% 1/10	W W W W
R1587 R1588 R1589 R1590 R1591	1-216-677-11 1-216-295-91 1-216-295-91 1-216-093-00 1-216-089-91	METAL GLAZE 0 METAL GLAZE 0 METAL GLAZE 6	5%	1/10W 1/10W 1/10W 1/10W 1/10W	TH1501	1-810-035-21	ERMISTOR > THERMISTOR NER >		
R1592 R1593 R1594 R1595 R1597	1-216-071-00 1-216-073-00 1-216-286-00 1-216-071-00 1-216-109-00	METAL GLAZE 19 METAL GLAZE 4. METAL GLAZE 8.	.2K 5%)K 5% .7M 5% .2K 5%	1/10W 1/10W 1/8W 1/10W 1/10W	TU101	1-693-314-21	TUNER (UV1316) (KV-28WS3A/28WS3B/28 TUNER (U1344) (KV-28 KSTAL >	BWS3D/28WS3 BWS3U)	E/28WS3K)
R1601 R1602 R1604 R1605 R1607	1-216-083-00 1-216-129-00 1-216-063-91 1-216-065-00 1-216-101-00	METAL GLAZE 2. METAL GLAZE 3. METAL GLAZE 4.	2M 5% 2M 5% 9K 5% 7K 5% 60K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	X1001 X1101 X1531 X2001	1-579-689-21 1-760-895-21	VIBRATOR, CERAMIC (4 VIBRATOR, CRYSTAL (8 (KV-28WS3B/28WS3E/28 VIBRATOR, CERAMIC (2 VIBRATOR, CERAMIC (2	3.192MHz) BWS3U) 3.69MHz)	
R1608 R1609 R1610 R1613 R1615	1-216-119-00 1-216-055-00 1-216-075-00 1-216-059-00 1-216-025-91	METAL GLAZE 1. METAL GLAZE 12 METAL GLAZE 2.	0K 5% 8K 5% K 5% 7K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	*******	1-473-191-11	IF BLOCK (IFH-389WE) IF BLOCK (IFH-389EE)	(KV-28WS3)	A/28WS3D/ E)
R1616 R1617 R1618 R2002 R2003	1-216-073-00	METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 10	0 5%	1/10W 1/10W 1/10W 1/10W 1/10W		1-473-190-11	IF BLOCK (IFH-395GB)	(KV-28WS3)	
R2005 R2007 R2008 R2009 R2010	1-216-041-00 1-216-073-00 1-216-025-91 1-216-057-00 1-216-025-91	METAL GLAZE 47 METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 2.	0 5% K 5% 0 5% 2K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C01 C02 C03 C04 C05	1-164-299-11 1-164-337-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.22MF CERAMIC CHIP 2.2MF CERAMIC CHIP 2.2MF ELECT 22MF	10% 10% 20%	25V 25V 16V 16V 50V
R2011 R2012 R2013 R2014 R2022	1-216-057-00 1-216-017-91 1-216-017-91 1-216-017-91 1-216-049-91	METAL GLAZE 47 METAL GLAZE 47 METAL GLAZE 47	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C06 C07 C08 C09 C10	1-163-009-11 1-164-004-11	ELECT 22MF CERAMIC CHIP 0.0068M CERAMIC CHIP 0.001MF CERAMIC CHIP 0.1MF CERAMIC CHIP 7PF	20% F 10% 10% 10% 0.25PF	50V 50V 50V 25V 50V
R2023 R2024 R2025 R2026 R2029	1-216-295-91 1-216-065-00 1-216-063-91 1-216-065-00 1-216-091-00	METAL GLAZE 4. METAL GLAZE 3. METAL GLAZE 4.	7K 5% 9K 5% 7K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C11 C12 C13 C14 C15	1-164-232-11 1-124-910-11 1-124-910-11 1-164-232-11	ELECT 47MF CERAMIC CHIP 0.01MF	10% 20% 20% 10%	16V 50V 50V 50V 50V
R2030 R2031 R2032	1-216-025-91 1-216-295-91 1-216-049-91	METAL GLAZE 0	5%	1/10W 1/10W 1/10W	C16 C17 C18 C19	1-164-232-11 1-163-117-00	CERAMIC CHIP 1MF CERAMIC CHIP 0.01MF CERAMIC CHIP 100PF CERAMIC CHIP 1MF	10% 5%	16V 50V 50V 16V

| | | (KV-28WS3A/28WS3D/28WS3E)

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	N REMARK
C20	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V		< IC	>	
C21 C22 C23	1-164-222-11 1-124-910-11 1-124-910-11		25V 50V 50V	IC01 IC02 IC03	8-759-514-54	IC TDA9813T-T IC BA7046 IC L78L05ACZ-	
C24	1-124-910-11	(KV-28WS3A/28WS3D/28WS ELECT 47MF 20%	3E/28WS3K) 50V		< CO1	L >	
C25	1-124-910-11	ELECT 47MF 20% (KV-28WS3A/28WS3D/28WS	50V (3E/28WS3K)	L01	1-408-409-00	INDUCTOR	10UH (KV-28WS3A/28WS3D/28WS3E)
C26 C27 C28 ⁵⁵	1-124-910-11 1-163-133-00 1-124-910-11	ELECT 47MF 20% CERAMIC CHIP 470PF 5%	50V 50V 50V	L02	1-408-407-00 1-408-408-00 1-403-686-11	INDUCTOR	6.8UH (KV-28WS3K) 6.8UH (KV-28WS3U)
C29 C30 C31 C32 C33	1-164-232-11 1-164-232-11 1-124-910-11 1-164-004-11 1-163-086-00	ELECT 47MF 20% CERAMIC CHIP 0.1MF 10%	50V 50V 50V 25V PF 50V	L03 L04 L05 L06 L07	1-408-419-00 1-408-419-00 1-410-790-41 1-408-419-00 1-408-408-00	INDUCTOR	68UH 68UH 0.56UH 68UH 8.2UH (KV-28WS3K)
C34 C35	1-124-910-11 1-163-009-11	The state of the s	50V 50V		< TR	NSISTOR >	
C36	1-104-666-11	ELECT 220MF 20%	6.3V KV-28WS3K)	Q01 Q02	8-729-920-74 8-729-901- 0 1	TRANSISTOR 2S TRANSISTOR DT	C144EK
C37	1-163-249-11		50V KV-28WS3K)	Q03	8-729-901-01	TRANSISTOR DT	WS3A/28WS3D/28WS3E/28WS3K) *C144EK *WS3A/28WS3D/28WS3E/28WS3K)
C38	1-163-237-11	(KV-28WS3A/28WS	50V 3D/28WS3E) 50V	Q04 005	8-729-216-22 8-729-216-22	TRANSISTOR 2S	
		CERAMIC CHIP 47PF 5%	KV-28WS3K) 50V KV-28WS3U)	Q06 Q07 Q08	8-729-920-74 8-729-920-74	TRANSISTOR 25 TRANSISTOR 25 TRANSISTOR 25	C2412K-QR C2412K-QR
C39	1-163-097-00	CERAMIC CHIP 15PF 5%	50V KV-28WS3K)	Q09	8-729-920-74	(KV-28)	WS3A/28WS3D/28WS3E/28WS3K) CC2412K-QR
	< FII	TER >		Q10	8-729-920-74		WS3A/28WS3D/28WS3E/28WS3K) C2412K-QR (KV-28WS3K)
CF01	1-760-416-21	FILTER, CERAMIC (KV-28WS3A/28WS3D/28WS	3E/28WS3K)		< RES	ISTOR >	
CF02 CF03		FILTER, CERAMIC (KV-28WS3K) FILTER, CERAMIC (KV-28WS3A/28WS3D/28WS		JR01 JR02 JR03 JR04	1-216-296-91 1-216-296-91 1-216-296-91 1-216-296-91	METAL GLAZE METAL GLAZE	0 5% 1/8W 0 5% 1/8W 0 5% 1/8W 0 5% 1/8W
CF04		TRAP, CERAMIC (KV-28WS3A/28WS3D/28WS	3E/28WS3K)	JR05	1-216-295-91	METAL GLAZE	0 5% 1/10W ws3a/28ws3D/28ws3E/28ws3U)
CF05	1-404-134-00	FILTER, CERAMIC (KV-28WS3U) TRAP, CERAMIC (5.5MHZ) (KV-28WS3A/28WS3D/28WS TRAP, CERAMIC (6.0MHZ) (KV-28		JR06 JR10 JR11	1-216-295-91 1-216-296-91 1-216-296-91	METAL GLAZE	0 5% 1/10W 0 5% 1/8W 0 5% 1/8W
SAW01		FILTER, SURFACE WAVE (KV-28WS3A/28WS3D/28WS		R01 R02	1-216-031-00 1-216-057-00	METAL GLAZE	180 5% 1/10W 2.2K 5% 1/10W
		FILTER, SURFACE WAVE (KV-28WS NNECTOR >	3U)	R03 R04 R05	1-216-057-00 1-216-041-00 1-216-041-00	METAL GLAZE	2.2K 5% 1/10W 470 5% 1/10W 470 5% 1/10W
CN01 CN02		PIN, CONNECTOR (PC BOARD) 10P PIN, CONNECTOR (PC BOARD) 10P		R06	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W WS3A/28WS3D/28WS3E/28WS3K)
CNUZ	1-/30-919-11 < DIO			R07	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W WS3A/28WS3D/28WS3E/28WS3K)
D01	8-719-421-57	DIODE MA73-TX (KV-28WS3A/28WS3D/28WS	ታው / ኃይ ለ ፎንድ /	R08	1-216-039-00		390 5% 1/10W WS3A/28WS3D/28WS3E/28WS3K)
D02	8-719-421-57	DIODE MA73-TX (KV-28WS3A/28WS3D/28WS	•	R09 R10	1-216-073-00 1-216-081-00		10K 5% 1/10W 22K 5% 1/10W
	1-216-296-91	METAL GLAZE 0 5% 1/8	W KV-28WS3U)	R11	1-216-081-00	METAL GLAZE	WS3A/28WS3D/28WS3E/28WS3K) 22K 5% 1/10W WS3A/28WS3D/28WS3E/28WS3K)
D03	8-719-914-43	DIODE DAN202K		R12	1-216-113-00	METAL GLAZE	

F (KV-28WS3A/28WS3D/28WS3E)

				(100 20	1100142011000				
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	<u>NC</u>		REMARK
R13 R14	1-216-065-00 1-216-065-00	METAL GLAZE 4.7K 5% METAL GLAZE 4.7K 5%	1/10W 1/10W	R54	1-216-075-00	METAL GLAZE	12K 5%	1/10	
R15 R17		METAL GLAZE 270 5%	1/10W 1/10W 1/10W	R55	1-216-045-00	METAL GLAZE	680 5%	1/10W	7-28WS3K) V 7-28WS3K)
R18	1-216-093-00	METAL GLAZE 68K 5%	1/10W	R56	1-216-045-00	METAL GLAZE	680 5%	1/10W	
R19 R20	1-216-242-91 1-216-033-00	METAL GLAZE 180 5%	1/8W 1/10W	R57	1-216-295-91	METAL GLAZE	0 5%	1/10W	
	1-216-031-00	METAL GLAZE 180 5%	/28WS3D/28WS3E) 1/10W -28WS3K/28WS3U)		1-216-043-91		8WS3A/28WS31 560 5%	1/10W	
 R21	1-216-049-91	·	1/10W	R58	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W	
	1-216-061-00	(KV-28WS3A	/28WS3D/28WS3E) 1/10W	R59	1-216-041-00	METAL GLAZE	470 5%	1/10W	7 -28WS3K)
	1-216-055-00		(KV-28WS3K) 1/10W	R60	1-216-067-00	METAL GLAZE	5.6K 5%	1/10W	
	1 110 000 00	mann oman row 30	(KV-28WS3U)	R61	1-216-025-91		100 5% BWS3A/28WS3I	1/10W	'
R22 R23	1-216-025-91 1-218-755-11		1/10W % 1/10W		< VAR	IABLE RESISTOR		.,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
R24 R25	1-216-206-00 1-216-107-00		1/8W 1/10W	RV01	1-241-786-11	RES, ADJ, CAR	RBON 22K		
R26	1-216-073-00	METAL GLAZE 10K 5%	1/10W	******	*****	*******	******	*****	******
R27 R28 R29	1-216-113-00 1-216-113-00 1-216-081-00		1/10W 1/10W 1/10W		1-467-573-13	IF BLOCK (IFF		7-28 W S3B	·)
R30 R31	1-216-198-91 1-216-198-91		1/8W 1/8W		< CAP.	ACITOR >			
R32 R33	1-216-057-00 1-216-059-00		1/10W 1/10W	C101 C102	1-163-017-00 1-164-232-11	CERAMIC CHIP		10%	50V
R34	1-216-095-00	METAL GLAZE 82K 5%	1/10W	C104	1-163-017-00	CERAMIC CHIP	0.0047MF	10% 10%	50V 50V
R35 R36	1-216-083-00 1-216-075-00	METAL GLAZE 27K 5% METAL GLAZE 12K 5%	1/10W 1/10W	C111 C112	1-164-004-11 1-163-133-00	CERAMIC CHIP		10% 5%	25V 50V
R37	1-216-057-00	METAL GLAZE 2.2K 5% (KV-28WS3A/28WS3D/	1/10W (28WS3E/28WS3K)	C113 C114	1-164-489-11 1-124-925-11		0.22MF 2.2MF	10% 20%	16V 50V
R38	1-216-095-00	METAL GLAZE 82K 5% (KV-28WS3A/28WS3D/	1/10W (28WS3E/28WS3K)	C115 C116	1-124-916-11 1-124-916-11	ELECT	22MF 22MF	20% 20%	50V 50V
R39	1-216-059-00	METAL GLAZE 2.7K 5% (KV-28WS3A/28WS3D/	1/10W	C117	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50 V
R40	1-216-075-00	METAL GLAZE 12K 5%	1/10W	C120 C121	1-124-925-11	ELECT	2.2MF 2.2MF	20% 20%	50V 50V
R41	1-216-083-00	(KV-28WS3A/28WS3D/ METAL GLAZE 27K 5%	1/10W	C122 C123	1-164-489-11 1-164-232-11	CERAMIC CHIP	0.01MF	10% 10%	16V 50V
R42	1-216-174-00	(KV-28WS3A/28WS3D/ METAL GLAZE 100 5%	1/8W	C126	1-163-085-00			0.25PF	
R43	1-216-037-00	METAL GLAZE 330 5% (KV-28WS3A/28WS3D/	1/10W	C128 C131	1-164-489-11 1-163-113-00	CERAMIC CHIP	68PF	10% 5%	16V 50V
R44	1-216-037-00		1/10W	C132 C133	1-163-097-00 1-163-113-00	CERAMIC CHIP	68PF	5% 5%	50V 50V
R45	1-216-198-91	METAL GLAZE 1K 5% (KV-28WS3A/28WS3D/	1/8W	C134	1-163-239-11			5%	50V
	1-216-194-00	METAL GLAZE 680 5%	1/8W	C135 C141	1-124-477-11 1-163-249-11	CERAMIC CHIP		20% 5%	16V 50V
R46	1-216-049-91	METAL GLAZE 1K 5%	(KV-28WS3K) 1/10W	C143 C145 C151	1-163-251-11 1-124-477-11 1-124-477-11	ELECT	47MF		50V 16V
	1-216-198-91		1/8W				47MF		16V
R48 R49	1-216-049-91	(KV-28WS3A/28WS3D/		C152 C161	1-124-477-11	ELECT	47MF	20%	16V 16V
		METAL GLAZE 1.2K 5% METAL GLAZE 390 5%	1/10W 1/10W	C162 C173		CERAMIC CHIP		10%	16V 50V
R51	1-216-039-00	METAL GLAZE 390 5%	1/10W	C174		CERAMIC CHIP			50V
R52	1-216-039-00		(KV-28WS3K) 1/10W	C175 C177	1-163-227-11 1-164-004-11	CERANIC CHIP	0.1MF	10%	50V 25V
R53	1-216-083-00	(KV-28WS3A/28WS3D/ METAL GLAZE 27K 5%	1/10W	C191 C201	1-164-232-11 1-164-346-11	CERANIC CHIP	1MF		50V 16V
			(KV-28WS3K)	C202	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50 V

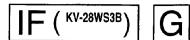
IF (KV-28WS3B)

REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK		
C203	1-124-477-11	ELECT 47MF	20%	16V	Q152	8-729-920-74	TRANSISTOR 2SC24	12K-QR			
C204 C205	1-164-346-11 1-164-161-11	CERAMIC CHIP 1MF CERAMIC CHIP 0.0022MF	10%	16V 50V	Q153	8-729-920-74	TRANSISTOR 2SC24	12K-QR			
C206 C207	1-163-251-11	CERAMIC CHIP 100PF CERAMIC CHIP 0.22MF	5%	50V 25V	Q154 Q161		TRANSISTOR DTC14 TRANSISTOR 2SC24				
			5 0		Q162	8-729-920-74	TRANSISTOR 2SC24	12K-QR			
C208 C302	1-164-232-11	CERAMIC CHIP 0.001MF CERAMIC CHIP 0.01MF	5% 10%	50V 50V	Q171		TRANSISTOR 2SA11				
C502 C503	1-124-477-11 1-164-232-11	ELECT 47MF CERAMIC CHIP 0.01MF	20% 10%	16V 50V	Q174 Q175		TRANSISTOR DTC14 TRANSISTOR DTC14				
C901	1-124-477-11		20%	16V	Q176 Q181	8-729-901-01	TRANSISTOR DTC14 TRANSISTOR 2SC24	4EK			
C902	1-163-059-91	CERAMIC CHIP 0.01MF	10%	5 0 V	Q191		TRANSISTOR 25C24				
	< FII	TER >			Q201	8-729-216-22	TRANSISTOR 2SA11	62-G			
CF171	1-567-100-00	FILTER, CERAMIC FILTER, CERAMIC FILTER, CERAMIC FILTER, CERAMIC FILTER, SURFACE WAVE FILTER, SURFACE WAVE				< RES	SISTOR >				
CF172 CF173	1-567-101-11 1-760-107-21	FILTER, CERAMIC FILTER, CERAMIC			JR101	1-216-295-91	METAL GLAZE 0	5%	1/10W		
CF174	1-760-106-21	FILTER, CERAMIC			JR102 JR103	1-216-296-00 1-216-296-00		5% 5%	1/8W 1/8W		
SWF101	1-579-273-11	FILTER, SURFACE WAVE			JR104	1-216-295-91	METAL GLAZE 0	5%	1/10W		
SWF103					JR106	1-216-296-00		5%	1/8W		
	< COM	NECTOR >			JR107 JR109	1-216-295-91 1-216-295-91		5% 5%	1/10W 1/10W		
CN1 CN2	1-750-919-11	PIN, CONNECTOR (PC BOAR) PIN, CONNECTOR (PC BOAR)	D) 10P		JR110 JR111	1-216-295-91 1-216-296-00		5% 5%	1/10W 1/8W		
C1.2		IMMER >	-,		JR112	1-216-295-91		5%	1/10W		
					JR113	1-216-296-00		5%	1/8W		
CT101 CT131		TRAP, CERAMIC TRAP, CERAMIC			JR114 JR115	1-216-295-91 1-216-295-91	METAL GLAZE 0	5% 5%	1/10W 1/10W		
	< DIC	DDE >			JR116 JR117	1-216-296-00 1-216-296-00		5% 5%	1/8W 1/8W		
D101	8-719-914-43	DIODE DAN202K			JR118	1-216-296-00	METAL GLAZE 0	5%	1/8W		
D171 D201	8-719-914-43	DIODE DAN202K DIODE DAN202K			JR119 JR120	1-216-296-00 1-216-295-91		5% 5%	1/8W 1/10W		
2001					JR121 JR122	1-216-296-00 1-216-296-00	METAL GLAZE 0	5% 5%	1/8W		
	< IC								1/8W		
IC1 IC2	8-759-193-13 8-759-514-54	IC BA7046			JR123 JR124	1-216-296-00 1-216-296-00	METAL GLAZE 0	5% 5%	1/8W 1/8W		
IC3 IC4		IC CXA1875M IC NJN2233BM			JR125 JR126	1-216-295-91 1-216-295-91		5% 5%	1/10W 1/10W		
	< CO1				JR127	1-216-296-00		5%	1/8W		
T101					JR128 JR129	1-216-295-91 1-216-295-91		5%	1/10W 1/10W		
L101 L102		INDUCTOR CHIP 0.22UH			JR130	1-216-296-00	METAL GLAZE 0	5% 5%	1/8W		
L131 L132	1-408-407-00 1-410-426-21				JR131 JR132	1-216-296-00 1-216-296-00	METAL GLAZE 0 METAL GLAZE 0	5% 5%	1/8W 1/8W		
L142	1-408-409-00	INDUCTOR 10UH			JR133	1-216-296-00	METAL GLAZE 0	5%	1/8W		
L171 L201	1-408-609-41 1-408-419-00				JR134 JR135	1-216-295-91 1-216-296-00		5% 5%	1/10W 1/8W		
L501	1-408-411-00	INDUCTOR 15UH			JR136	1-216-295-91	METAL GLAZE 0	5%	1/10W		
L901	1-408-411-00				JR137	1-216-296-00	METAL GLAZE 0	5%	1/8W		
	< TRI	ANSISTOR >			JR138 JR140	1-216-296-00 1-216-296-00		5% 5%	1/8W 1/8W		
Q101 Q102	8-729-104-80 8-729-901-01	TRANSISTOR 2SC3355 TRANSISTOR DTC144EK			JR141 JR142	1-216-296-00 1-216-295-91	METAL GLAZE 0 METAL GLAZE 0	5% 5%	1/8W 1/10W		
Q104 Q121	8-729-901-01	TRANSISTOR DTC144EK			JR143	1-216-296-00	METAL GLAZE 0	5%	1/8W		
Q121 Q131	8-729-216-22 8-729-920-74				JR145	1-216-296-00		5%	1/8W		
Q132	8-729-920-74				JR146 JR150	1-216-295-91 1-216-295-91		5% 5%	1/10W 1/10W		
Q141 Q142		TRANSISTOR 2SC2412K-QR TRANSISTOR 2SC2412K-QR			JR152 JR154	1-216-296-00 1-216-296-00		5% 5%	1/8W 1/8W		
Q151	8-729-920-74					 vv		• •	<u> </u>		

The components identified by shading and marked $\hat{\mathcal{H}}$ are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque 🦪 sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.





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	REF.NO.	PART NO.	DESCRIPTION	N		REMARK	REF.NO.	PART NO.	DESCRIPT	ION			REMARK
	JR160 JR161 JR162 JR166 JR167	1-216-296-00 1-216-295-91 1-216-295-91 1-216-295-91 1-216-296-00	METAL GLAZE METAL GLAZE	0 0 0 0	5% 5% 5% 5%	1/8W 1/10W 1/10W 1/10W 1/8W	R184 R185 R191 R192 R193	1-216-043-00 1-216-067-00 1-216-093-00 1-216-093-00 1-216-065-00	METAL GLAZE METAL GLAZE	68K 68K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	! !
	R100 R102 R103 R104 R105	1-216-025-00 1-216-059-00 1-216-001-00 1-216-176-11 1-216-017-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 2.7K 10 120 47	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/8W 1/10W	R194 R195 R201 R202 R203	1-216-049-00 1-216-216-00 1-216-198-91 1-216-107-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE	5.6K 1K 270K	5% 5% 5% 5% 5%	1/10W 1/8W 1/8W 1/10W 1/10W	
· ·	R106 R107 R109 R111 R113	1-216-057-00 1-216-057-00 1-216-057-00 1-216-295-91 1-216-031-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 2.2K 2.2K 0 180	5%	1/10W 1/10W 1/10W 1/10W 1/10W	R204 R205 R206 R207 R208	1-216-113-00 1-218-755-11 1-216-049-00 1-216-113-00 1-216-113-00	METAL CHIP METAL GLAZE	130K 1K 470K	5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	R114 R115 R116 R117 R118	1-216-035-00 1-216-035-00 1-216-025-00 1-216-031-00 1-216-061-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	270 270 100 180 3.3K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R209 R210 R211 R301 R302	1-216-049-00 1-216-081-00 1-216-073-00 1-216-073-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	22K 10K 10K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	R120 R131 R133 R134 R135	1-216-180-00 1-216-198-91 1-216-031-00 1-216-049-00 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	180 1K 180 1K 0	5% 5% 5% 5% 5%	1/8W 1/8W 1/10W 1/10W 1/10W	R303 R306 R308 R309 R310	1-216-049-00 1-216-049-00 1-216-073-00 1-216-025-00 1-216-025-00	METAL GLAZE	1K 10K 100	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	R136 R137 R138 R139 R140	1-216-041-00 1-216-041-00 1-216-049-00 1-216-067-00 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470 470 1K 5.6K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	RV111 RV112	< VAR 1-241-786-11 1-241-765-11	IABLE RESISTO RES, ADJ, CA RES, ADJ, CA	RBON 22K			
				-				< TRA	NSFORMER >				
	R142 R144 R145	1-216-041-00	METAL GLAZE METAL GLAZE METAL GLAZE	1K 470 470	5% 5% 5%	1/10W 1/10W 1/10W	T111	1-403-686-22	COIL				
	R146 R147	1-216-043-00	METAL GLAZE METAL GLAZE	560 100	5% 5%	1/10W 1/10W	*****	******	*******	******	*****	*****	*****
	R148 R149	1-216-049-00 1-216-049-00	METAL GLAZE	1K 1K	5% 5%	1/10W 1/10W		*A-1636-009-A	G BOARD, COM				
		1-216-226-00 1-216-069-00 1-216-689-11	METAL GLAZE METAL GLAZE	15K 6.8K 39K	5% 5% 5%	1/8W 1/10W		4-368-683-21 4-382-854-11	SPRING, TRAN SCREW (M3X10		(+)		
	VT23			JJK	24	1/10W		< CAP	ACITOR >				
	R154 R155	1-216-057-00 1-216-057-00		2.2K 2.2K	5% 5%	1/10W 1/10W	C602	1-165-127-11	CERANTC	470PF	1	0%	500V
	R156	1-216-037-00	METAL GLAZE	330	5%	1/10W	C603	1-165-127-11	CERANIC	470PF	1	0%	500V
	R161 R162	1-216-079-00 1-216-069-00		18K 6.8K	5% 5%	1/10W 1/10W	C604 C605 C606	1-136-171-00 1-137-399-11 1-136-171-00	FILM	0.33MF 0.1MF 0.33MF	5' 5' 5'	8	50V 50V 50V
	R163 R164	1-216-689-11 1-216-057-00		39K 2.2K	5% 5%	1/10W 1/10W	C607	1-137-399-11					
	R165	1-216-057-00	METAL GLAZE		5%	1/10W	C608	1-164-625-11		0.1MF 680PF	5° 1	%)%	50V 500V
	R166 R167	1-216-037-00 1-216-073-00		330 10K	5% 5%	1/10W 1/10W	C609 C610 C611	1-129-718-00 1-126-953-11 1-126-953-11		0.022MF 2200MF 2200MF)%	630V 35V 35V
		1-216-212-00 1-216-067-00		3.9K 5.6K		1/8W 1/10W	C613	1-128-548-11	ELECT	4700MF)%	25v
	R171	1-216-045-00	METAL GLAZE	680	5%	1/10W	C614	1-128-548-11	ELECT	4700MF	2)%	25V
	R178	1-216-025-00 1-216-057-00	METAL GLAZE	100 2.2K	5% 5%	1/10W 1/10W	C615 C616 C617	1-110-626-11 1-164-625-11 1-136-559-11	CERAMIC	330MF 680PF 0.0047MF	1)%	160V 500V 400V
		1-216-057-00 1-216-057-00		2.2K 2.2K	5% 5%	1/10W 1/10W	C618	1-104-889-91		0.0022MF			400V
	R181	1-216-041-00	METAL GLAZE	470	5%	1/10W	C619	1-136-165-00	FILM	0.1MF	59	6	5 0 V
	R182 R183	1-216-041-00 1-216-192-00		470 560	5% 5%	1/10W 1/8W	C620 C621	1-126-519-12 A 1-136-518-12	BLECT FILM	47MF 0.47MF)%)%	50V 300V
				-			C622	£ 1-136-415-51		0.33MF			300V



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specified.

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK	
C626	À 1-164-503-61 À 1-164-503-61	CERAMIC 0.0022MF	20% 20%	400V 400V			RRITE BEAD >	
C627 C628 C629	1-126-940-11 1-126-965-11 1-162-599-12	ELECT 22MF	20% 20%	25V 50V 250V	FB603 FB604		FERRITE BEAD INDUCTOR	
C630	1-162-599-12	CERAMIC 0.0047MF		250V		< IC	>	
	1-161-964-91 1-125-555-11 1-136-165-00 1-136-165-00	CERAMIC 0.0047MF BLECT 330MF FILM 0.1MF	20% 5% 5%	250V 400V 50V 50V	IC601 IC602 A	1-810-051-11 8-749-010-64 < CO	POWER MODULE DM-48 PHOTO COUPLER PC123F2	
C637	1-126-964-11	ELECT 10MF	20%	50V	L601	1-412-525-31		
C638 C639	1-126-964-11 1-126-964-11 1-162-580-51 1-102-002-91	BLECT 10MF BLECT 10MF CERAMIC 0.01MF	20% 20% 20%	50V 50V 400V 500V	L602 L603 L605 L606	1-412-525-31 1-412-525-31 1-412-523-11 1-412-523-11	INDUCTOR 10UH INDUCTOR 10UH INDUCTOR 6.8UH	
C646 C647	1-136-171-00 1-136-171-00		5% 5%	50V 50V		< TR	ANSFORMER >	
C650 C651	1-126-964-11 1-136-171-00	ELECT 10MF	20% 5%	50V 50V 50V	LF601 &	1-424-436-11	TRANSFORMER, LINE FIL	TER
C652	1-136-171-00		5%	50V	T6 01	1-429-255-11	TRANSFORMER, CONVERTE TRANSFORMER, CONVERTE	R (PIT)
C653	1-136-169-00	FILM 0.22MF	5%	50V			LINK >	w (fwr)
	< COI	NNECTOR >			PS601 A		LINK, IC (ICP-N75) 2.	72
A COCOTO	1 500 505 41	PIN, CONNECTOR (5MM PI PIN, CONNECTOR (5MM PI PLUG, CONNECTOR 13P PIN, CONNECTOR (PC BOAL			PS602 🕭 PS604 🕭	1-532-686-91 1-532-686-91	LINK, IC (ICP-N75) 2. LINK, IC (ICP-N75) 2. LINK, IC (PRF4000) 4A	7A 7A
0210 1 22 12	< DIC	ODE >	(D) JI			< TRA	ANSISTOR >	
D601		DIODE D4SB60L			Q601 Q602	8-729-032-87	TRANSISTOR 2SC4834NP- TRANSISTOR 2SC4834NP-	F09
D602 D603	8-719-991-33	DIODE 1SS133T-77			Q̃603	8-729-119-78	TRANSISTOR 2SC2785-HF	F09 E
D605 D607	8-719-047-31	DIODE RD5.6ESB2 DIODE RBA-402L DIODE D10SC4M			Q604 Q605	8-729-173-38	TRANSISTOR 2SC2500-B TRANSISTOR 2SA733-K	
D608		DIODE DIOSC4M			Q606	8-729-119-78	TRANSISTOR 2SC2785-HF	3
D609	8-719-047-31	DIODE RBA-402L			Q607 Q608	8-729-119-78	TRANSISTOR DTA144ESA TRANSISTOR 2SC2785-HF	3
D610 D612	8-719-911-19	DIODE S2LA20F DIODE 1SS119-25			Q610 Q611		TRANSISTOR 2SA733-K TRANSISTOR 2SC2785-HF	3
D613		DIODE 188119-25			Q612		TRANSISTOR 2SA733-K	
D614 D615	8-719-911-19 8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25			Q613 Q614		TRANSISTOR DTC144ESA-1 TRANSISTOR DTA144ESA	rp .
D616 D617	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25			Q615 Q616	8-729-200-21 8-729-030-03		rp
D618		DIODE 1SS119-25			Q617	8-729-029-56	TRANSISTOR DTA144ESA	
D619 D620	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25				< RES	ISTOR >	
D621 D622	8-719-510-64	DIODE 1SS119-25 DIODE S2LA20F			R601	1-202-933-61		0% 1/2W F
D623	8-719-510-64	DIODE S2LA20F			R602 R603	1-247-891-00 1-247-891-00		
D624 D625		DIODE R2K-V1 DIODE 1SS119-25			R604 R605	1-216-369-00 1-247-891-00	METAL OXIDE 1 59	6 2W F
D626 D627		DIODE 1SS119-25 DIODE 1SS119-25			R606	1-247-891-00		
D628		DIODE 188119-25			R607	1-216-369-00	METAL OXIDE 1 59	6 2W F
D630 D631		DIODE 188133T-77			R608 R609	1-247-887-00 1-249-429-11	CARBON 10K 59	1/4W F
D632	8-719-991-33	DIODE 1SS133T-77	1		R610	1-249-419-11		
D633 D634	8-719-991-33 8-719-991-33	DIODE 1SS133T-77 DIODE 1SS133T-77			R618 🛦 R619 🛦	1-205-949-11 1-205-949-11 1-244-945-91 1-218-265-91	WIREWOUND 1.8 59 CARBON 1M 59	10W 5 1/2W

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	REF.NO	. PART NO.	DESCRIPTION	ON			REMARK	REF.NO.	PART NO.	DESCR	IPTION		REMARK
	R621	1-249-417-1	I GARDON	1 10	го.	1 / / **	-						
	KU21	1-243-41/-1.	I CARBON	1K	5%	1/4W	r	C711 C712	1-101-880-00 1-102-978-00		47PF	5% 50	50V
	R622	1-249-430-13	l CARBON	12K	5%	1/4W		C713	1-102-980-00		220PF 270PF	5%	50V
	R623	1-249-436-13	L CARBON	39K	5%	1/4W		6,13	1-102-300-00	CERABIC	27021	5%	50V
	R624	1-249-425-13	L CARBON	4.7K	5%	1/4W		C714	1-102-980-00	CERAMIC	270PF	5%	50V
	R625	1-247-815-91		220	5%	1/4W		C716	1-128-526-11		100MF	20%	16V
	R626	1-247-863-91	CARBON	22K	5%	1/4W		C720	1-162-116-00		680PF	10%	2KV
	R627	1-247-815-91	CADDOM	220	5%	1/4W							
	R628	1-249-411-11		330	5%	1/4W			< C0	NNECTOR >			
	R630	1-249-429-11		10K	5%	1/4W		CN0003	1-695-915-11	MAD (COMM	3.CM)		
	R631	1-215-477-00		220K	1%	1/4W		CN0003	1-695-915-11	TAB (CONT)	ACT)		
5.	R632	1-249-417-11		1K	5%	1/4W		CN0411	*1-568-882-11	PIN COMM	RCTOP 7D		
						-,		CN0421	*1-508-767-00	PIN, COMM	ECTOR (5MM PI	TCH) 5P	
	R633	1-249-429-11		10K	5%	1/4W							
	R634	1-247-895-91		470K		1/4W			< DI	ODE >			
	R635	1-249-417-11		1K	5%	1/4W	_						
	R636 R637	1-207-905-00 1-249-389-11		0.27		2W	F	D701	8-719-991-33	DIODE 1SS	133T-77		
	K63/	1-249-309-11	CARBON	4.7	. 5%	1/4W	F.	D702	8-719-991-33	DIODE 1SS	L33T-77		
	R638	1-249-425-11	CARRON	4.7K	5%	1/4W		D703 D704	8-719-991-33	DIODE ISSI	L33T-77		
	R639	1-247-791-91		22	5%	1/4W		D704 D705	8-719-991-33 8-719-991-33	DIODE 1881	L33T-//		
	R640	1-247-791-91	CARBON	22	5%	1/4W		1 2703	0-113-331-33	DIODE 1991	L33T-77		
	R641	1-247-791-91	CARBON	22	5%	1/4W		D706	8-719-991-33	DIODE 1991	1330-77		
	R642	1-247-791-91		22	5%	1/4W		D707	8-719-991-33	DIODE 1881	1331-77 133 1- 77		
								D708	8-719-991-33	DIODE 1881	33T-77		
	R644	1-249-425-11		4.7K	5%	1/4W		D709	8-719-991-33				
	R645	1-249-415-11		680	5%	1/4W		D714	8-719-109-97	DIODE RD6.	8ES-B2		
	R646	1-249-403-11		68	5%	1/4W							
	R647 R651	1-249-429-11		10K	5%	1/4W	_	D715	8-719-018-82	DIODE RGPO	2-20EL-6394		
	KOSI	1-215-000-00	METAL OXIDE	10	5%	2W	F	1					
	R652	1-247-891-00	CARBON	330K	5%	1/4W			< CRI	SOCKET >			
	R653	1-247-891-00	CARBON		5%	1/4W		J701 Æ	1-526-990-14	SOCKET. CR	iψ		
	R654	1-247-891-00		330K		1/4W				, 	· -		
	R655	1-247-891-00		330K		1/4W			< COI	IL >			
	R656	1-249-439-11	CARBON	68K	5%	1/4W							
	R657	1-249-429-11	CYBDOM	10K	E0.	1 / 474		L701	1-408-413-00	INDUCTOR	22UH		
	R658	1-249-421-11		2.2K	5% 5%	1/4W 1/4W		L702 L703	1-408-413-00	INDUCTOR	22UH		
	R659	1-249-425-11			5%	1/4W		L704	1-408-409-00 1-408-413-00	INDUCTOR	10UH		
	R660	1-249-429-11			5%	1/4W		L705	1-408-409-00	TMDUCTOR	22UH 10UH		
	R661	1-249-421-11	CARBON	2.2K	5%	1/4W					10011		
	R662	1-249-421-11	CADDON	2.2K	E0.	1 / /34		L706	1-408-413-00	INDUCTOR	22UH		
	R663	1-249-429-11			5%	1/4W 1/4W		L707	1-408-409-00	INDUCTOR	10 U H		
	R664	1-249-429-11			5%	1/4W			∠ πpa	NSISTOR >			
	R665	1-249-425-11		4.7K		1/4W			(ING	NOTOTOK >			
								Q701	8-729-326-11	TRANSISTOR	2SC2611		
		< REI	μAΥ >					Q702	8-729-326-11	TRANSISTOR	2SC2611		
	RYËO1	△ 1-515-720-31	DET.AV					Q703	8-729-326-11	TRANSISTOR	25C2611		
		22 2 323 720 32	10.12.11					Q704 Q705	8-729-326-11 8-729-326-11	TRANSISTOR TRANSISTOR	2SC2611 2SC2611		
		< THE	RMISTOR >										
	THP601	A 1-809-827-11	THERMISTOR. PO	OSTTTVR	!			Q706 Q707	8-729-326-11 8-729-200-17	TRANSISTOR	2SC2611		
								Q708	8-729-200-17	TRANSISTOR	2SA1091-0		
		< VAR	ISTOR >					Q709	8-729-200-17	TRANSISTOR	2SA1091-0		
,	VDR601	1-810-977-11	173 DTCMOD					Q710	8-729-119-78	TRANSISTOR	2SC2785-HFE		
								Q711	8-729-119-78	TIP A NICT CTIOD	2002705_000		
•	******	*********	*******	*****	****	******	*****	Q712	8-729-119-78	TRANSISTOR	2SC2785-HFE		
		*1-1638-070-1	C BOARD, COMPI	מחס				Q714	8-729-255-12	TRANSISTOR	2SC2551-0		
		A 1030 070-A	**********					Q715	8-729-173-38	TRANSISTOR	2SA733-K		
		4 200 054 44	CORDER (NOMEO)		, ,				< RESI	ISTOR >			
		4-382-854-11	SCREW (M3X10),	P, SW	(+)			D701	1 200 040 00	AAT TO	4P*		
		< CAP	ACITOR >					R701 R702	1-202-846-00 1-202-838-00		470K 20%		
								R702		SOLID SOLID	100K 20% 100K 20%		
	701	1-162-114-00		.0047M	F	2	2KV	R705	1-249-377-11	CARBON	0.47 5%	1/4W	P
(2703	1-107-651-11	ELECT 4	.7MF	:	20% 2	250 v	R706	1-249-377-11	CARBON	0.47 5%	1/4W	

C	D											
REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>			REMARK	REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>		REMARK
R707 R708 R709 R710 R711	1-249-416-11 1-249-416-11 1-249-416-11 1-215-922-11 1-202-549-00	CARBON CARBON	820 820 820 6.8K 100	5% 5% 5% 5% 2 0 %	1/4W 1/4W 1/4W 3W 1/2W	F	C823 C824 C825 C827 C835	1-164-232-11 1-162-117-00 1-124-902-00 1-102-228-00 1-107-655-11	CERAMIC	0.01MF 100PF 0.47MF 470PF 47MF	10% 10% 20% 10% 20%	50V 500V 50V 500V 250V
R712 R713 R714 R715 R716	1-215-922-11 1-202-549-00 1-215-922-11 1-202-549-00 1-249-405-11	SOLID METAL OXIDE SOLID	6.8K 100 6.8K 100 100	5% 20% 5% 20% 5%	3W 1/2W 3W 1/2W 1/4W	ļ	C836 C837 C838 C839 C840	1-102-228-00 1-102-228-00 1-102-228-00 1-126-941-11 1-126-941-11		470PF 470PF 470PF 470MF 470MF	10% 10% 10% 20% 20%	500V 500V 500V 25V 25V
R717 R718 R725 R726 R727	1-249-405-11 1-249-405-11 1-249-421-11 1-249-421-11 1-249-421-11	CARBON CARBON CARBON	100 100 2.2K 2.2K 2.2K	5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W		C841 C842 C863 C873 C874	1-106-375-12 1-136-559-11 1-163-017-00 1-162-134-11 1-164-645-11	FILM	0.022MF 0.0047MF 0.047MF 470PF 1000PF	10% 10% 10% 10% 10%	250V 400V 50V 2KV 500V
R728 R729 R730 R731	1-249-407-11 1-249-407-11 1-249-407-11 1-247-791-91	CARBON CARBON CARBON	150 150 150 22	5% 5% 5%	1/4W 1/4W 1/4W 1/4W		C875 C892	1-163-275-11 1-163-009-11 < CON			5% 10%	50V 50V
R732 R733 R734 R738 R739 R740	1-247-791-91 1-247-791-91 1-202-549-00 1-249-401-11 1-249-401-11	CARBON SOLID CARBON CARBON	22 22 100 47 47 47	5% 5% 20% 5% 5%	1/4W 1/2W 1/4W 1/4W 1/4W		CN0009 CN0501 CN0503 CN0504 CN0505	1-568-878-51 *1-564-516-11 1-764-607-11 1-764-607-11 1-764-607-11	PLUG, CONNEC CONNECTOR, B CONNECTOR, B	TOR 13P OARD TO BOA OARD TO BOA	RD 8P	
R743 R747 R749 R751	1-249-435-11 1-216-489-11 1-216-489-11 1-216-489-11	CARBON METAL OXIDE METAL OXIDE	33K 27K 27K 27K 27K	5% 5% 5% 5%	1/4W 3W 3W 3W	F F	CN0521 DY1	*1-508-767-00 *1-580-798-11 < DIO	CONNECTOR PI		CCH) 5P	
R753 R767 R768	1-249-429-11 1-249-437-11 1-249-417-11	CARBON CARBON CARBON	10K 47K 1K	5% 5% 5%	1/4W 1/4W 1/4W		D802 D803 D804 D805	8-719-979-99 8-719-043-14 8-719-971-20 8-719-908-03	DIODE ERDO8M DIODE ESAD39 DIODE ERC38- DIODE GP08D	M-06C		
		RIABLE RESISTO					D806	8-719-908-03	DIODE GP08D			
RV701 RV702		RES, ADJ, ME RES, ADJ, ME	TAL FIL	M 1101	M	*****	D811 D812 D813 D815	8-719-510-26 8-719-110-13	DIODE D1NL20 DIODE D1NL20 DIODE RD9.1E	SB2		
	*A-1640-182-A	D BOARD, COM					D872 D874	8-719-914-43	DIODE DA204K			
	4-200-399-01						5074		RITE BEAD >			
		SCREW (M3X10 PACITOR >), P, S	W (+)			FB801 FB802 FB803	1-410-396-51	FERRITE BEAD FERRITE BEAD FERRITE BEAD	INDUCTOR 0	.45UH	
C801 C802	1-123-024-21 1-136-207-11		33MF 0.047M	F	10%	160V 250V	1003	< IC <		INDUCTOR		
C8 04 C8 0 5 C8 0 8	1-102-030-00		220PF 330PF 680PF		10% 10% 10%	50V 500V 2KV	IC801	8-759-103-93	IC UPC393C			
	1-162-116-00							< COI	L >			
C809 C810 C811 C812 C813	1-162-116-00 1-106-367-00 1-109-833-11 1-136-759-11 1-109-844-11	MYLAR FILM FILM	680PF 0.01MF 0.0145 0.039M 0.68MF	MF F	10% 10% 3% 5% 5%	2KV 400V 1.8KV 630V 400V	L802 L803 L806 L811 L813	1-459-474-11 1-459-474-11 1-459-592-11 1-459-104-00 1-459-104-00	COIL (WITH C	ORE) ORE) (PMC) ORE		
C814 C816 C817 C819 C822	1-129-702-00 1-109-844-11 1-136-759-11 1-137-102-91 1-126-967-11	FILM FILM FILM	0.001M 0.68MF 0.039M 0.022M 47MF	F	10% 5% 5% 10% 20%	400V 400V 630V 250V 50V	L814 L815 L816	1-422-613-11 1-410-397-21 1-408-947-00			. 1 UH	

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RI	EF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTI	ON		REMARK
		< TRA	ANSISTOR >				*A-1644-064-A	VM BOARD, CO			
Q8	801 802 803	8-729-119-80 8-729-821-07 8-729-931-45	TRANSISTOR 2SC TRANSISTOR 2SC TRANSISTOR IRF	3997CA			*4-368-683-21 4-382-854-11	SPRING, TRAN			
		< RES	SISTOR >				< CA	PACITOR >			
JE JE JE	R502 R503 R504 R505	1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91	METAL GLAZE (METAL GLAZE (METAL GLAZE (0 5% 0 5% 0 5% 0 5%	1/10W 1/10W 1/10W 1/10W	C1701 C1702 C1703 C1704 C1705	1-126-933-11 1-102-074-00 1-126-933-11 1-126-933-11 1-107-638-11	CERAMIC ELECT ELECT	100MF 0.001MF 100MF 100MF 33MF	20% 10% 20% 20% 20%	16V 50V 16V 16V 160V
R8 R8 R8	302 303 304 305 306	1-215-916-00 1-215-916-00 1-215-916-00 1-215-923-00 1-216-037-00	METAL OXIDE (METAL OXIDE (METAL OXIDE (580 5% 580 5% 580 5% 10K 5% 330 5%	3W F 3W F 3W F 3W F 1/10W	C1706 C1707 C1708 C1709 C1720	1-104-999-11 1-104-989-91 1-137-364-11 1-137-364-11 1-107-667-11	FILM FILM FILM	0.1MF 0.0022MF 0.001MF 0.001MF 2.2MF	5% 5% 5% 5% 20%	200V 200V 50V 50V 160V
R8 R8 R8	807 808 809 810	1-216-061-00 1-216-385-11 1-215-880-00 1-215-914-11 1-216-434-11	METAL OXIDE 0 METAL OXIDE 1 METAL OXIDE 3	3.3K 5% 0.47 5% 10 5% 330 5% 1.8K 5%	1/10W 3W F 2W F 3W F 1W F	C1721 C1722 C1723 C1841 C1844	1-104-989-91 1-128-581-11 1-161-830-00 1-130-481-00 1-106-367-00	FILM BLECT CERAMIC FILM	0.0022MF 4.7MF 0.0047MF 0.0068MF 0.01MF	5% 20% 5% 10%	200V 100V 500V 50V 400V
R8 R8	117 118 119 120	1-202-972-61 1-249-377-11 1-249-377-11 1-214-907-00	CARBON CARBON C	5%).47 5%).47 5% 66K 1%	1/4W F 1/4W F 1/4W F 1/2W	C1845	1-106-220-00		0.1MF	10%	100V
R8	21	1-249-428-11	CARBON 8	3.2K 5%	1/4W	CN1015			OD (D		
	23	1-216-055-00		.8K 5%	1/10W	CNIUIS	*1-568-881-51	PIN, CUNNECTO	UK 6P		
R8 R8	35 37 42 43	1-216-079-00 1-216-059-00 1-249-887-11 1-202-822-00	METAL GLAZE 2 CARBON 3	.8K 5% 2.7K 5% 3 5% 2.2K 20%	1/10W 1/10W 1/4W F 1/2W	D1701 D1702 D1703	8-719-110-88	DIODE 1SS1331 DIODE RD39ESE	B2		
R8	50	1-249-424-11 1-216-099-00 1-249-389-11 1-216-399-00	METAL GLAZE 1 CARBON 4	.9K 5% 20K 5% .7 5% .8 5%	1/4W 1/10W 1/4W F 3W F	D1840 D1841	8-719-302-43 8-719-991-33	DIODE RD39ESF DIODE EL1Z DIODE 1SS1339			
R8				20K 5%	1/10W		< COI				
R8 R8 R8 R8	54 55 56		METAL GLAZE 2 METAL GLAZE 4 METAL GLAZE 1	20 5% 2K 5% 7K 5% 0K 5% 3K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	L1701 L1702 L1703 L1841 L1843	1-408-603-41 1-408-597-41 1-408-603-41 1-459-075-00 1-459-104-00	INDUCTOR INDUCTOR COIL, DYNAMIC		CHOKE	
R8:		1-216-061-00 1-2 0 2-822-00		.3K 5%	1/10W 1/2W	01701	< TRA 8-729-119-78	NSISTOR >	100705 tmm		
R8: R8: R8:	94 95 96 74	1-216-295-91 1-215-866-11 1-216-295-91 1-216-295-91	METAL GLAZE 0 METAL OXIDE 3 METAL GLAZE 0 METAL GLAZE 0	5% 30 5% 5%	1/10W 1W F 1/10W 1/10W	Q1701 Q1702 Q1703 Q1704 Q1705	8-729-119-78 8-729-017-05 8-729-119-78		SC2785-HFE SA1837 SC2785-HFE		
R89	98	1-216-295-91 1-216-107-00 1-216-105-91	METAL GLAZE 0	70K 5% 5% 20K 5%	1/10W 1/10W 1/10W	Q1706 Q1707 Q1840 Q1841	8-729-119-78	TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S TRANSISTOR 2S	SC2551-0 SC2785-HFE		
		< TRAI	VSFORMER >				< RES	ISTOR >			
T8(T8(T8(T8(03 04 05 <i>A</i> r	1-453-187-11	TRANSFORMER, FEI TRANSFORMER, FEI COIL, HORIZONTAI TRANSFORMER ASSI TRANSFORMER, FEI	RRITE (PMT) L LINEARITY Y, FLYBACK	(NX-2661/U2E)	R1701 R1702 R1703 R1704 R1705	1-249-417-11 1-249-417-11 1-249-421-11 1-249-415-11 1-247-791-91	CARBON CARBON CARBON	1K 5% 1K 5% 2.2K 5% 680 5% 22 5%	1/4W 1/4W 1/4W 1/4W 1/4W	
						R1706 R1707 R1708	1-247-791-91 1-247-807-31 1-249-410-11	CARBON CARBON CARBON	22 5% 100 5% 270 5%	1/4W 1/4W 1/4W	

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REF.NO.	PART NO.	DESCRIPTION		ļ	REMARK	REF.NO.	PART NO.	DESCRIPTION	Ŗ	EMARK	
R1709 R1710	1-249-401-11 1-249-401-11		5% 5%	1/4W 1/4W			*A-1646-099-A		28WS3A/28 28WS3E/28 28WS3U)		
R1711 R1712 R1713	1-249-429-11 1-260-311-11 1-249-384-11	CARBON 39 CARBON 1.8	5% 5% 5% 5%	1/4W 1/2W 1/4W 1/4W			*A-1646-108-A *4-374-987-01	H2 BOARD, COMPLETE (KV-			
R1714 R1715	1-249-414-11 1-249-432-11		5%	1/4W	r			BRACKET (B), LIGHT GUID	E		
R1716 R1717	1-249-417-11 1-216-476-11	METAL OXIDE 180	5% 5%	1/4W 3W	F F			NECTOR >			
R1718 R1719 R1720	1-249-432-11 1-249-384-11 1-249-400-11	CARBON 1.8	5% 5% 5%	1/4W 1/4W 1/4W		CN1214	PLUG, CONNECTOR 8P	CONNECTOR 8P			
R1721	1-249-414-11		5% 5%	1/4W 1/4W		D091	8-719-989-36	DIODE LD-201DU (KV-28WS3A/28WS3D/28WS3	R / 28WG3K /	28WG3II)	
R1722 R1723 R1841 R1842	1-249-401-11 1-249-426-11 1-247-871-91 1-247-764-11	CARBON 5.6K CARBON 47K	5% 5% 5%	1/4W 1/4W 1/4W		D092		DIODE LD-201VR HOLDER, LED; D092	L, 20H931.,		
R1843	1-247-764-11	CARBON 2.2K	5%	1/4W		D093	*4-201-076-01	DIODE LD-201VR HOLDER, LED; D093			
R1844 R1847 R1848	1-249-421-11 1-249-887-11 1-215-875-11	CARBON 33	5% 5% 5%	1/4W 1/4W 1W	F F	D094		DIODE LD-201VR HOLDER, LED ; D094			
R1849	1-247-764-11	CARBON 10K		1/2W			< IC				
******		*******		*****	******	IC091		IC SBX1810-11			
	*A-1646-098-A	H1 BOARD, COMPLETE				R091	1-249-413-11		1/4W		
	1-568-678-11 1-764-606-11	TERMINAL BLOCK, S JACK	3P					*****	•	*****	
		ACITOR >					*A-1651-073-A	J BOARD, COMPLETE			
C081 C082	1-102-973-00 1-102-973-00	CERAMIC 100PH	?	5% 5%	50V 50V		< CAF	PACITOR >			
C083 C087	1-101-005-00 1-101-005-00	CERAMIC 0.022			5 0V 5 0V	C270 C271	C271 1-163-063-00 C273 1-101-003-00 C274 1-101-003-00		50V 50V		
mr1 1 1 2		NECTOR >								50V 50V 50V	
CN1113 CN1123		PIN, CONNECTOR 4P PLUG, CONNECTOR 91	P			C290	1-101-005-00			50V	
	< COI					C295 C296	1-163-009-11	CERAMIC CHIP 0.001MF CERAMIC CHIP 0.001MF	10%	50V 50V	
L081 L082	1-408-409-00 1-408-409-00	INDUCTOR 100 INDUCTOR 100				C401 C402	1-164-005-11 1-126-933-11	CERAMIC CHIP 0.47MF BLECT 100MF		16V 16V	
		SISTOR >				C403 C410	1-126-966-11		20%	16V 50V	
R081 R082 R083 R084	1-249-429-11 1-249-425-11 1-249-421-11 1-249-419-11	CARBON 4.71 CARBON 2.21	5% K 5% K 5% K 5%	1/4W 1/4W 1/4W 1/4W		C421 C422 C423	1-126-967-11 1-126-967-11 1-163-031-11			50V 50V 50V	
R085	1-249-419-11		K 5%	1/4W		C424 C425	1-163-129-00	CERAMIC CHIP 330PF CERAMIC CHIP 330PF	5% 5%	50V 50V	
S081	1-571-532-21	TTCH > SWITCH, TACTIL				C426 C427 C428		ELECT 47MF CERAMIC CHIP 1MF CERAMIC CHIP 1MF		16V 16V 16V	
\$082 \$083	1-571-532-21	-571-532-21 SWITCH, TACTIL -571-532-21 SWITCH, TACTIL				C429 C901 C902 C904 C905	1-163-011-11 1-163-129-00	CERAMIC CHIP 0.0015MF CERAMIC CHIP 0.0015MF CERAMIC CHIP 330PF CERAMIC CHIP 330PF	20% 10% 10% 5% 5%	16V 50V 50V 50V 50V	
						C906 C907	1-101-004-00 1-163-129-00	CERAMIC 0.01MF CERAMIC CHIP 330PF	5%	50V 50V	

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REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C908 C909 C910	1-101-004-00	CERAMIC CHIP 330PF CERAMIC 0.01MF CERAMIC CHIP 0.0047MF	5% 10%	50V 50V 50V	D920 D921 D922	8-719-923-60 8-719-923-60 8-719-923-60		A
C911 C912 C913 C914 C915	1-163-129-00 1-163-129-00 1-163-129-00	CERAMIC CHIP 0.0047MF CERAMIC CHIP 330PF CERAMIC CHIP 330PF CERAMIC CHIP 330PF CERAMIC CHIP 330PF	10% 5% 5% 5% 5%	50V 50V 50V 50V 50V	D923 D924 D925 D926 D927	8-719-923-60 8-719-923-60 8-719-923-60	DIODE MTZJ-T-77-9.11 DIODE MTZJ-T-77-9.12 DIODE MTZJ-T-77-9.12 DIODE MTZJ-T-77-9.12 DIODE MTZJ-T-77-9.12	A A
C916 C917 C918 C919 C920	1-163-011-11 1-163-121-00 1-163-121-00	CERAMIC CHIP 0.0015MF CERAMIC CHIP 0.0015MF CERAMIC CHIP 150PF CERAMIC CHIP 150PF CERAMIC CHIP 0.0015MF	10% 10% 5% 5% 10%	50V 50V 50V 50V 50V	D928 D930 D931 D932	8-719-923-60 8-719-923-60 8-719-923-60	DIODE MTZJ-T-77-9.12 DIODE MTZJ-T-77-9.12 DIODE MTZJ-T-77-9.12 DIODE MTZJ-T-77-9.12	<u> </u>
C921	1-163-011-11	CERAMIC CHIP 0.0015MF	10%	50V		< IC	>	
C922 C923 C924	1-126-967-11 1-164-346-11 1-126-967-11	ELECT 47MF CERAMIC CHIP 1MF ELECT 47MF	20% 20%	16V 16V 16V	IC401 IC402	8-752-068-46 8-759-073-00	IC TEA2114	
C925	1-126-967-11	ELECT 47MF	20%	16V		< SOC	KET >	
C926 C928 C929 C930 C931	1-126-967-11 1-126-967-11 1-126-967-11	ELECT 47MF	20% 20% 20%	16V 16V 16V 16V 16V	J291 J292 J901 J903 J904	1-537-978-11 1-695-296-11 1-561-534-41	TERMINAL BOARD TERMINAL BOARD TERMINAL BLOCK, S SOCKET, PIN 21P TERMINAL BLOCK, S	
C932 C933 C935 C936 C937	1-126-967-11 1-126-967-11 1-164-346-11		20% 20%	16V 16V 16V 16V	J905 J906 J907	1-695-293-11 1-695-296-11 1-695-293-11 < COI	TERMINAL BLOCK, S SOCKET 21P	
C938	1-126-967-11	ELECT 47MF	20%	16V	L284	1-402-711-11	INDUCTOR, WIDEBAND	
	. 707	**************************************			L291	1-402-711-11	INDUCTOR, WIDEBAND	
	₹ CUM	NECTOR >			L292 L294	1-402-711-11	INDUCTOR, WIDEBAND INDUCTOR, WIDEBAND	
CN0806 CN0807 CN0823 CN0824	1-695-300-11 1-564-524-11	CONNECTOR, BOARD TO BOA CONNECTOR, BOARD TO BOA PLUG, CONNECTOR 9P PLUG, CONNECTOR 4P	RD 40P RD 20P		L295	1-402-711-11	INDUCTOR, WIDEBAND INDUCTOR, WIDEBAND	
CNO 825		PLUG, CONNECTOR 4P				< TRAI	NSISTOR >	
	< DIO	DE >			Q401	8-729-920-74	TRANSISTOR 2SC2412K-)R
D401 D403 D405	8-719-923-60	DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A			Q402 Q403 Q404	8-729-920-74	TRANSISTOR 2SC2412K-(TRANSISTOR OR .	
D406 D407		DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A				< RESI	ISTOR >	
D901 D902 D903 D904 D905	8-719-923-60 8-719-923-60 8-719-923-60 8-719-923-60				JR291 JR292 JR294 JR296 JR297	1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91 1-216-296-91	METAL GLAZE 0 SMETAL GLAZE 0 SMETAL GLAZE 0	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/8W
D906 D907 D908 D909	8-719-923-60 8-719-923-60 8-719-923-60 8-719-923-60	DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A			JR298 JR401 JR402 JR403 JR404	1-216-296-91 1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91	METAL GLAZE 0 5 METAL GLAZE 0 5 METAL GLAZE 0 5	1/8W % 1/10W % 1/10W % 1/10W % 1/10W
D910 D911 D913 D914 D915 D916	8-719-923-60 8-719-923-60 8-719-923-60 8-719-923-60	DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A			JR405 JR406 JR407 JR408 JR901	1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91	METAL GLAZE 0 5 METAL GLAZE 0 5 METAL GLAZE 0 5 METAL GLAZE 0 5	% 1/10W % 1/10W % 1/10W % 1/10W % 1/10W
D917 D919	8-719-923-60	DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A			JR905 JR907 JR908	1-216-296-91 1-216-296-91 1-216-296-91	METAL GLAZE 0 5	% 1/8W % 1/8W % 1/8W

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REF.NO.			-						_			-
JR909 JR910 JR911	1-216-295-91 1-216-296-91 1-216-295-91	METAL GLAZE METAL GLAZE METAL GLAZE	0 !	5%	1/10W 1/8W 1/8W	R919 R920 R921	1-216-063-91 1-216-063-91 1-216-022-00	METAL GLAZE METAL GLAZE METAL GLAZE	3.9K 3.9K 75	5% 5% 5%	1/10W 1/10W 1/10W	
R283 R284 R285 R286 R291	1-216-073-00 1-216-073-00 1-216-073-00 1-216-073-00 1-216-190-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 10K 10K 10K 10K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/8W	R922 R923 R924 R925 R926	1-216-073-00 1-216-039-00 1-216-039-00 1-216-089-91 1-216-039-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 390 390 47K 390	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R292 R293 R294 R401 R403	1-216-190-00 1-216-216-00 1-216-216-00 1-216-158-00 1-216-025-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	5.6K 5.6K 22	5% 5% 5%	1/8W 1/8W 1/8W 1/8W 1/10W	R927 R928 R929 R930 R931	1-216-039-00 1-216-089-91 1-216-063-91 1-216-113-00 1-216-063-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	390 47K 3.9K 470K 3.9K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R404 R405 R406 R407 R410	1-216-158-00 1-216-025-91 1-216-158-00 1-216-025-91 1-216-174-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 22 100	5% 5% 5%	1/8W 1/10W 1/8W 1/10W 1/8W	R932 R933 R934 R935 R936	1-216-113-00 1-216-073-00 1-216-063-91 1-216-022-00 1-216-171-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 10K 3.9K 75 75	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/8W	
R411 R412 R413 R414 R416	1-216-174-00 1-216-022-00 1-216-022-00 1-216-022-00 1-216-113-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	75 75 75	5% 5% 5%	1/8W 1/10W 1/10W 1/10W 1/10W	R937 R938 R939 R940 R941	1-216-113-00 1-216-039-00 1-216-039-00 1-216-063-91 1-216-113-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 390 390 3.9K 470K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	•
R417 R419 R420 R421 R423	1-216-067-00 1-216-113-00 1-216-067-00 1-216-171-00 1-216-015-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 5.6K 75	5% 5% 5%	1/10W 1/10W 1/10W 1/8W 1/10W	R942 R943 R944 R945 R946	1-216-039-00 1-216-089-91 1-216-039-00 1-216-089-91 1-216-022-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	390 47K 390 47K 75	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R424 R425 R428 R429 R430	1-216-174-00 1-216-174-00 1-249-393-11 1-216-065-00 1-216-065-00	METAL GLAZE METAL GLAZE CARBON METAL GLAZE METAL GLAZE	100 10 4.7K	5% 5% 5%	1/8W 1/8W 1/4W F 1/10W 1/10W	R948 R949 R950 R951 R952	1-216-073-00 1-216-113-00 1-216-063-91 1-216-063-91 1-216-113-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 470K 3.9K 3.9K 470K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R431 R432 R433 R434 R435	1-216-065-00 1-216-065-00 1-216-296-91 1-216-049-91 1-216-049-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 0 1K	5% 5% 5%	1/10W 1/10W 1/8W 1/10W 1/10W	R953 R954 R955 R956 R957	1-216-039-00 1-216-039-00 1-216-039-00 1-216-089-91 1-216-039-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	390 390 390 47K 390	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R436 R437 R438 R439 R440	1-216-049-91 1-216-049-91 1-216-296-91 1-216-296-91 1-216-296-91	METAL GLAZE METAL GLAZE METAL GLAZE	1K 0 0	5% 5% 5%	1/10W 1/10W 1/8W 1/8W 1/8W	R958 R959 R960 R961 R967	1-216-089-91 1-216-674-11 1-216-674-11 1-216-674-11 1-216-171-00	METAL CHIP METAL CHIP	9.1K	5% 0.50% 0.50% 0.50% 5%	1/10W	
R901 R902 R903 R904 R905	1-216-039-00 1-216-039-00 1-216-113-00 1-216-113-00 1-216-039-00	METAL GLAZE METAL GLAZE METAL GLAZE	390 470K 470K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R968 R969 R970 R971 R972	1-216-055-00 1-216-055-00 1-216-055-00 1-216-055-00 1-216-055-00	METAL GLAZE METAL GLAZE METAL GLAZE	1.8K 1.8K 1.8K 1.8K 1.8K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R906 R907 R908 R909 R910	1-216-039-00 1-216-171-00 1-216-171-00 1-216-113-00 1-216-055-00	METAL GLAZE METAL GLAZE METAL GLAZE	75 75	5% 5% 5%	1/10W 1/8W 1/8W 1/10W 1/10W	R973 R974 R975 R976 R977	1-216-055-00 1-216-055-00 1-216-113-00 1-216-055-00 1-216-055-00	METAL GLAZE METAL GLAZE	1.8K 1.8K 470K 1.8K 1.8K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
R911 R913 R914 R915 R916	1-216-022-00 1-216-063-91 1-216-063-91 1-216-113-00 1-216-113-00	METAL GLAZE METAL GLAZE	3.9K 3.9K 470K	5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W							
R917 R918	1-216-171-00 1-216-171-00	METAL GLAZE METAL GLAZE		5% 5%	1/8W 1/8W							

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REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION	<u>ON</u>	REMARK
	*A-1654-017-A	T BOARD, COMPLETE (KV-20	8WS3A/2 8WS3E/2		C5152 C5154	1-124-925-11	ELECT METAL GLAZE	2.2MF 0 5%	20% 50V . 1/10W
	*A-1654-020-A	T BOARD, COMPLETE (KV-28		,			······································	• 50	(KV-28WS3B)
	*A-1654-019-A	T BOARD, COMPLETE (KV-28	BWS3U)				LTER >		
	< CAI	PACITOR >			CF5101			8WS3A/28WS3	D/28WS3E/28WS3K)
C5101 C5110	1-104-664-11	ELECT 47MF CERAMIC CHIP 0.01MF	20% 10%	25V 50V	CF5102		FILTER, CERAL FILTER, CERAL		,
C5111		CERAMIC CHIP 0.01MF	10%	50V (V-28W\$3B)	CF5103	1-760-106-11 1-567-100-00	FILTER, CERAL	MIC (KV-28W MIC (KV-28W	S3B) S3U)
C5112	1-164-232-11	CERAMIC CHIP 0.01MF (KV-28WS3A/28WS3B/28WS3I	10% 1/28W53	50V R/28WS3K)		< CO	NNECTOR >		
	1-216-295-91		1/10W		CN5151 CN5152		PIN, CONNECTO		
C5113	1-163-024-00	CERAMIC CHIP 0.018MF	10% (K	50V V-28WS3B)		< TRI	IMMER >		
C5114 C5115		CERAMIC CHIP 0.01MF CERAMIC CHIP 2PF	10% 0.25P	50V F 50V	CT5104	1-409-430-11	TRAP, CERAMIC		D/28WS3E/28WS3K)
C5116 C5117		CERAMIC CHIP 7PF CERAMIC CHIP 1MF	0.25P 10% (K	F 50V 16V V-28WS3B)	CT5105	1-409-333-00 1-760-154-11		(6.0MHz)	(KV-28WS3U)
C5118	1-124-925-11	ELECT 2.2MF	20%	50V		< DIC	DDE >		
C5119 C5120	1-124-925-11 1-104-664-11	ELECT 47MF	20% 20%	50V 25V	D5102		DIODE DAN202F (KV-28WS3A/28	WS3B/28WS31	D/28W\$3E/28W\$3K)
C5121 C5122		CERAMIC CHIP 0.01MF	10% 10%	50V 50V	D5103 D5104		DIODE DAN202F DIODE DAN202F		
C5123 C5125		CERANIC CHIP 0.1MF CERANIC CHIP 0.22MF	10% 10%	25V 16V		< IC	>		
C5127 C5128		CERAMIC CHIP 470PF	20% 5%	50V 50V	IC5102 IC5103	8-752-072-94 8-759-361-11	IC CXA1875AM- IC TDA9813T/V	·Т4 /3-Т3	
C5129	1-163-016-00	CERAMIC CHIP 0.0039MF	10% (K)	50V V-28WS3B)	IC5104		(KV-28WS3A/28 IC TDA9814T/V IC NJM2233BM	'3-T3 (KV-28	
C5130 C5131	1-104-664-11 1-164-004-11	CERAMIC CHIP 0.1MF	20% 10%	25V 25V		< COI		(
C5132 C5133		CERAMIC CHIP 0.01MF	10% (K\ 10%	50V V-28WS3B) 50V	L5101 L5102	1-408-419-00		68UH	
C5134		CERAMIC CHIP 0.01MF	10%	50V	F3102	1-408-408-00 1-408-407-00	(KV-28	8.2UH WS3A/28WS3I 6.8UH	/28WS3E/28WS3K)
C5135 C5136	1-104-664-11 1-104-664-11	ELECT 47MF	20% 20%	25 V 25 V		2 200 201 00	211500101		'-28WS3B/28WS3U)
C5137	1-163-024-00	CERAMIC CHIP 0.018MF (KV-28WS3A/28WS3D/28WS3E	10%	7-28WS3B) 50V (/28WS3U)	L5103 L5104 L5105	1-408-411-00 1-408-876-00 1-412-748-21	INDUCTOR	15UH 0.22UH (K 10UH (KV-	V-28W53B)
C5139	1-163-251-11	CERAMIC CHIP 100PF	5%	50 v	L5106 L5107	1-412-754-21 1-408-421-00	INDUCTOR	39UH (KV- 100UH	
C5140	1-163-113-00	CERAMIC CHIP 68PF	5%	7-28WS3B) 50V	L5108	1-408-413-00	INDUCTOR	22UH	
C5142	1-163-239-11	CERAMIC CHIP 33PF	5%	7-28WS3B) 50V 7-28WS3B)	L5109 T5101	1-408-419-00 1-403-686-11		68UH	
C5144	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	·		NSISTOR >		
C5145 C5146	1-164-232-11 1-104-664-11	CERAMIC CHIP 0.01MF ELECT 47MF	10%	7-28WS3B) 50V	Q510 4	8-729-027-59	TRANSISTOR DT		
C5149	1-164-232-11		20% 10%	25V 50V	Q5105	8-729-027-59	TRANSISTOR DT	C144EKA-T14	/28WS} E/28WS3K) 6 /28WS} E/28WS3K)
C5150 C5151	1-126-933-11 1-126-964-11	ELECT 10MF	20% 20%	16V 16V	Q5106		TRANSISTOR DT	C144EKA-T14	6 (KV-28WS3B)
	1-126-933-11	(KV-28WS3A/28WS3D/28WS3E/ ELECT 100MF	20%	16V	Q5107 Q5108	8-729-920-74	TRANSISTOR DTG	C2412K-QR	6 (KV-28WS3B)
			(KV	-28WS3B)	Q5109 Q5110	8-729-920-74 8-729-920-74	TRANSISTOR 250	C2412K-QR C2412K-QR (KV-28/S3B)

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q5111	8-729-027-59	TRANSISTOR DTC144EKA-T146	(KV-28WS3B)	R5128	1-216-043-91		5% 1/10W /28WS3D/28WS3E/28WS3K)
Q5112 Q5113 Q5114	8-729-027-59 8-729-027-59 8-729-022-54	TRANSISTOR DTC144EKA-T146 TRANSISTOR DTC144EKA-T146 TRANSISTOR 2SC3779C,D-AA		R5129	1-216-057-00	METAL GLAZE 2.2	/20033D/20033B/20033R/ R 5% 1/10W /28WS3D/28WS3E/28WS3R)
Q51 15 Q5116	8-729-216-22 8-729-920-74	TRANSISTOR 2SA1162-G TRANSISTOR 2SC2412K-QR		R5130	1-216-057-00	METAL GLAZE 2.21	K 5% 1/10W (KV-28WS3B)
Q51 1 7	8-729-216-22	TRANSISTOR 2SA1162-G (KV-	28WS3B)	R5131	1-216-295-91		5% 1/10W /28WS3D/28WS3E/28WS3K)
Q5118 Q5121	8-729-920-74 8-729-027-59	TRANSISTOR 2SC2412K-QR (K TRANSISTOR DTC144EKA-T146	V-28WS3B)		1-216-043-91		5% 1/10W (KV-28WS3B/28WS3U)
· v·	< RES	ISTOR >		R5132	1-216-029-00		5% 1/10W /28WS3E/28WS3K/28WS3U)
JR5101 JR5102	1-216-295-91 1-216-295-91	METAL GLAZE 0 5% METAL GLAZE 0 5%	1/10W 1/10W		1-216-027-00		5% 1/10W (KV-28WS3B)
JR5105	1-216-295-91	METAL GLAZE 0 5%	(KV-28WS3B) 1/10W	R5133	1-216-061-00	METAL GLAZE 3.3F	K 5% 1/10W
		(KV-28WS3A/28WS3D/28WS3E/	28WS3K/28WS3U)	R5134 R5135	1-216-093-00 1-216-093-00		5% 1/10W 5% 1/10W
JR5106	1-216-295-91	METAL GLAZE 0 5%	1/10W	R5136	1-216-041-00		
DESTO	1-210-233-31	(KV-28WS3A/28WS3D/28WS3E/	_,,		1-216-035-00		
JR5107	1-216-295-91	•	1/10W	R5137 R5138	1-216-033-00		5% 1/10W 5% 1/10W
		(KV-28WS3A/28WS3D/28WS3E/	28WS3K/28WS3U)		•		
JR5108	1-216-295-91	METAL GLAZE 0 5%	1/10W	R5139	1-216-063-91		K 5% 1/10W
TDE100	1 216 205 01	WEMAT CLASE O ES	1 /1 0ti	R5140	1-216-067-00	METAL GLAZE 5.6F	K 5% 1/10W
JR5109 JR5110	1-216-295-91 1-216-295-91		1/10W 1/10W	R5141	1-216-073-00	METAL GLAZE 10K	(KV-28WS3B) 5% 1/10W
01.0220	2 820 875 72	(KV-28WS3A/28WS3D/28WS3E/			1 220 0,5 00	IMITIAL COMIND TON	(KV-28WS3B)
JR5111	1-216-295-91	METAL GLAZE 0 5% (KV-28WS3A/28WS3D/28WS3E/2	1/10W 28WS3K/28WS3U)	R5142	1-216-077-00		5% 1/10W
	1 046 005 01	VPD17 07377 0 F0	4 /4 0**	R5143	1-216-689-11		5% 1/10W
JR5113	1-216-295-91	METAL GLAZE 0 5% (KV-28WS3A/28WS3D/28WS3E/2	1/10W	R5144 R5145	1-216-057-00 1-216-069-00		
JR5114	1-216-295-91		1/10W	R5146	1-216-057-00	METAL GLAZE 6.8F	
JR5115	1-216-296-91	METAL GLAZE 0 5%	(KV-28WS3B) 1/8W	R5147	1-216-037-00	METAL GLAZE 330	5% 1/10W
	2 220 250 52		(KV-28WS3B)	R5148	1-216-295-91	METAL GLAZE 0	5% 1/10W /28WS3E/28WS3K/28WS3U)
JR5116	1-216-296-91	METAL GLAZE 0 5%	1/8W		1-216-017-91		5% 1/10W
JR5117	1-216-296-91		1/8W		1-210-01/-91	METAL GRAZE 4/	(KV-28WS3B)
R5112	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R5149	1-216-180-00	METAL GLAZE 180	5% 1/8W
			(KV-28WS3B)	R5150	1-216-057-00		5% 1/10W
R5113 R5114	1-216-025-91 1-216-025-91		1/10W 1/10W	DE1E1	1 216 057 00	WEENLY OLLOWS 2 22	(KV-28WS3B)
R5114 R5115	1-216-023-91		1/10W	R5151	1-216-057-00	METAL GLAZE 2.2K	(5% 1/10W
MJIIJ	1-210-075-00	MEIAH GHADE IVA 3%	(KV-28WS3B)				(KV-28WS3B)
DE116	4 04 6 000 65	1000 A 100 A 100 PA		R5152	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R5116	1-216-073-00	METAL GLAZE 10K 5%	1/10W (KV-28WS3B)	R5153	1-216-174-00	METAL GLAZE 100	(KV-28WS3B)
R5117	1-216-049-91	METAL GLAZE 1K 5%	1/10W	R5154	1-216-059-00		5% 1/8W 5% 1/1 0W
	2 220 015 52		(KV-28WS3B)	R5155	1-216-053-00		5% 1/10W
R5119	1-216-049-91	METAL GLAZE 1K 5% (KV-28WS3A/28WS3B/28WS3D/2	1/10W	R5156	1-216-025-91		5% 1/10W
		(R5158	1-216-049-91		5% 1/10W
R5120	1-216-025-91		1/10W	R5160	1-216-049-91		5% 1/10W
R5121	1-216-049-91		1/10W				(KV-28WS3B)
R5122	1-216-073-00		1/10W				
R5123	1-216-057-00		1/10W	R5161	1-216-295-91		5% 1/10W
		(KV-28WS3A/28WS3B/28WS3D/2	28WS3E/28WS3K)		1-216-037-00		28WS3E/28WS3K/28WS3U) 5% 1/10W
R5124	1-216-057-00	METAL GLAZE 2.2K 5% (KV-28WS3A/28WS3B/28WS3D/2	1/10W 28W53E/28W53E)	DE160			(KV-28WS3B)
R5125	1-216-057-00		1/10W	R5162	1-216-037-00	METAL GLAZE 330	5% 1/10W (KV-28WS3B)
DE126	1 01/ 055 05	WHEN AT 3	(KV-28WS3B)	DE4.60	1 014 00- 1-		FA 4 14 4 12
R5126	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W (KV-28WS3B)	R5163 R5164	1-216-037-00 1-216-037-00		5% 1/10W 5% 1/10W
R5127	1-216-043-91		1/10W				(KV-28WS3B)
		(KV-28WS3A/28WS3B/28WS3D/2	28WS3E/28WS3K)				

The components identified by shading and marked in are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque \sqrt{r} sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R5165	1-216-025-91	(KV-28WS3A/28WS3D/28WS3E				ELLANEOUS *******	
R5166	1-216-043-91 1-216-049-91		1/10W (KV-28WS3B) 1/10W (KV-28WS3B)		1-452-032-00 1-452-094-00	COIL, DEGAUSSING MAGNET, DISK; 10MM 2 MAGNET, ROTATABLE DI	SK; 15MM Ø
R5168	1-216-295-91	METAL GLAZE 0 5%	1/10W (KV-28WS3B)	<u>A</u> <u>A</u>	1-453-187-11	COIL, NA ROTATION (F TRANSFORMER ASSY, FI	T-165) YBACK (NX-2661/U2E)
R5169	1-216-049-91	(KV-28WS3A/28WS3D/28WS3E	1/10W		1-505-154-11	SPEAKER (5CM) SPEAKER (6.5CM) SPEAKER (10CM)	
	1-216-033-00		(KV-28WS3B)		1-540-006-22	CAP ASSY, HIGH-VOLTA SWITCH, PUSH (AC POW	
R5170 R5171 R5176 R5177	1-216-073-00 1-216-093-00 1-216-295-91 1-216-025-91	METAL GLAZE 68K 5% METAL GLAZE 0 5%	1/10W 1/10W 1/10W 1/10W			TUNER (UV1316) (KV-28WS3A/28WS3B/28 TUNER (U1344) (KV-28	8WS3D/28WS3E/28WS3K) 8WS3U)
R5178 R5180	1-216-025-91	METAL GLAZE 100 5% METAL GLAZE 10K 5%	1/10W 1/8W	Å.	1-751-680-11	CORD, POWER (WITH NO 2.5A/250V (KV-28	DISE FILTER) BWS3A/28WS3B/28WS3D/ 28WS3E/28WS3K)
R5181 R5182	1-216-049-91 1-216-049-91	METAL GLAZE 1K 5%	1/10W 1/10W (KV-28WS3B)	<u> </u>	1-590-762-11	CORD, POWER (WITH PI 2.5A/250V (KV-28WS3)	LUG)
R5183 R5184	1-216-174-00 1-216-180-00		1/8W 1/8W	Æ.	8-453-005-31	DEFLECTION YOKE (Y28 NECK ASSY, (NA297-M	3)
	< VAI	RIABLE RESISTOR >				PICTURE TUBE (SD-284	
RV5101 RV5102	1-241-765-11 1-241-765-11	RES, ADJ, CARBON 22K RES, ADJ, CARBON 22K (KV	7-28WS3B)	****	ACCE	RSSORIES AND PACKING I	MATERIALS
SF5101		FILTER, SURFACE WAVE (KV-28WS3A/28WS3I FILTER, SURFACE WAVE (KV)/28WS3E/29WS3K) /-28WS3B)		1-765-654-11 *4-050-192-01	CABLE, SPEAKER CUSHION (LOWER) (AS:	SY)
SF5102	1-760-757-11	FILTER, SURFACE WAVE (K) FILTER, SURFACE WAVE (K)	7-28WS3U)		*4-050-191-11	CUSHION (UPPER) (ASSINDIVIDUAL CARTON	SY)
	< TU	NER >			4-203-155-41	MANUAL, INSTRUCTION (ITALIAN)	(KV-28WS3A)
TU5101	1-693-315-21	TUNER (UV1316) (KV-28WS3A/28WS3B/28WS3	n/วดพรระ/วดพรระ)		4-203-155-51	MANUAL, INSTRUCTION (FRENCH)	(KV-28WS3B)
******		TUNER (U1344) (KV-28WS3)	J)		4-203-155-11	MANUAL, INSTRUCTION (GERMAN/ENGLISH/DUT ITALIAN)	(KV-28WS3D) CH/GREEK/FRENCH/
					4-203-155-71	MANUAL, INSTRUCTION (DANISH/DUTCH/FINNI NORWEGIAN/PORTUGUE:	SH/FRENCH/GERMAN/
					4-203-155-91	MANUAL, INSTRUCTION (BULGARIAN/CZECH/HU ENGLISH/POLISH)	(KV-28WS3K)
					4-203-155-61	MANUAL, INSTRUCTION (ENGLISH)	(KV-28WS3U)
					*4-395-957-01	BAG, PROTECTION	
						OTE COMMANDER	

1-466-854-41 COMMANDER, STANDARD TYPE (RM-860) 1-473-407-11 COMMANDER, STANDARD TYPE (RM-838) 9-903-466-01 POCKET, COVER (FOR RM-838)